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WHAT SHOULD YOU KNOW

Buying Electricity and Natural Gas in Today's Restructured Market

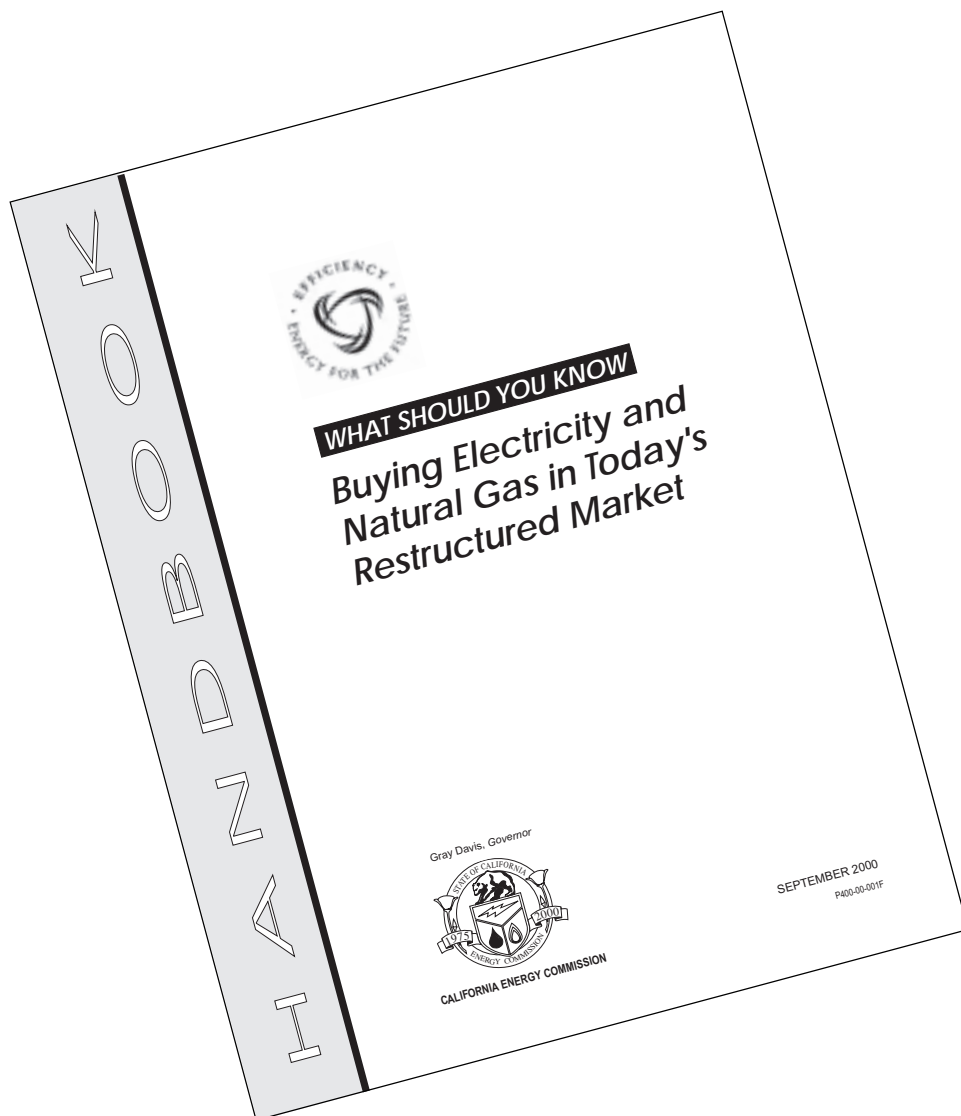
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CALIFORNIA ENERGY COMMISSION

SEPTEMBER 2000

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UPDATES TO HANDBOOK

State regulators and lawmakers are occasionally modifying the rules governing direct access to improve the operation and function of the energy markets. These adjustments coupled with electricity supply and transmission line issues can create a volatile energy environment. Being well informed and aware of the changes will help you decide on the best energy-purchasing and usage strategy for your agency.

To keep you updated on these changes, the California Energy Commission will post on our website, amendments to this document that highlight the most up-to date information regarding the restructured electricity and natural gas markets.

For this handbook and amendments, visit the California Energy Commission website at: **www.energy.ca.gov/reports/efficiency_handbooks/index.html**

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This document, “What You Should Know: Buying Electricity and Natural Gas in Today’s Restructured Market” was prepared by Henwood Energy Services, Incorporated (HESI) for the California Energy Commission. It is primarily written for public agencies to help them understand their energy procurement options. However, others may benefit from the information provided. The primary authors of this report from HESI are Douglas Davie, Kristen Kelley, George Givens, and Jon Collins. The California Energy Commission staff responsible for the development of this handbook are Daryl Mills, Virginia Lew, and Elizabeth Shirakh.

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For information on how to obtain a copy of this report or other Commission Handbooks on Energy Efficiency, contact the Nonresidential Building Office at (916) 654-4008. All documents can be downloaded from the Energy Commission’s Web Site at:

www.energy.ca.gov/reports/efficiency_handbooks/index.html

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I. INTRODUCTION

Buying electricity used to be relatively simple. One company, your local utility, sold you electricity and delivered it to your meter. The services you paid for included electricity generation, long distance transmission over high voltage lines, transport over local distribution lines, and the costs of meter reading and billing. The utility company even ran rebate programs for energy efficient equipment to help you reduce your energy use and costs.

In 1996, the California Legislature passed legislation (AB 1890, Chapter 854, Statutes of 1996) restructuring the state's electric industry. The start of the transition to the new electricity market began March 31, 1998¹. For customers in investor owned utility service territories (Pacific Gas and Electric, Southern California Edison, San Diego Gas and Electric, Sierra Pacific Power, Pacific Corp, Bear Valley Electric, and Mountain Utilities), the electric market structure changes were mandatory. For publicly owned utilities, the decision was left to the local governments. The governing body of each municipal utility must determine whether they wish to open their system to the competitive market.

With the restructured electric industry, customers can shop around, compare prices and services, and purchase electrical power from the supplier who best meets their needs. No longer are

customers restricted to buying power only from their local utility company. The ability to purchase electricity from other suppliers rather than from your traditional utility is called direct access. As a result of direct access, you may be able to better manage your energy bills and may have opportunities to cut your electricity costs.

These changes to the structure of California's electricity industry are profound and over time will most likely change the way you think about electric services. Unbundling of the various components of electricity service will give you opportunities to better manage your consumption choices and electricity costs.

The California Energy Commission (Energy Commission) developed this handbook to help public agencies understand the changes and choices in the new energy markets, the electricity market in particular. The handbook contains information on:

- industry changes and how they affect you and your organization;
- things to consider before you decide to switch power providers;
- a process to follow if you decide to purchase energy from a competitive supplier; and

¹ The original January 1, 1998, starting date changed to March 31, 1998 due to initial implementation difficulties.

- an update on the changing natural gas markets.

Two supplements included in this handbook provide a complete discussion of the changes to the structure of California's electric industry and answers to frequently asked questions.

The Appendices contain a Glossary, Sample Request for Proposal, and other resources to help you understand the changing energy marketplace.

The following are the major findings and conclusions discussed in the handbook:

- Prices in the current electricity market are very volatile and potential savings in the restructured energy market may be modest at this time.
- The rules governing electricity market operation are changing as lawmakers and others work to improve functioning of the restructured energy markets. Public agencies need to stay well informed, whether purchasing energy through direct access or staying with their local utility.
- Energy efficiency and load management are critical to reducing energy cost—even if public agencies are participating in direct access. They need to understand that the best

strategy to reducing energy cost is the one that relies on multiple approaches.

- Unbundling electricity energy commodity costs from other provider services is key to avoiding confusing and complex offers. Public agencies need to separate the cost for value-added services from energy in order to evaluate bids equivalently.
- Energy price bids are typically valid for a short time, one to five days. Unless there is an individual designated to negotiate for them, public agencies may have difficulty obtaining a board or city council decision within this time frame.
- Meter installation and re-installation is one of the problematic aspects of direct access. Switching providers could mean the need for new meters due to meter reading incompatibilities.
- Customized billing services can resulted in substantial savings due to reduced internal processing expenses. These savings can exceed the electricity price savings.

II. IS DIRECT ACCESS RIGHT FOR YOU? KEY ISSUES TO CONSIDER

Now that the basic elements and operation of the electricity market are changed, it may be time to determine if your agency could benefit from the new structure. Many public agencies have found that competitive services offered in the restructured electricity environment are complex and meet a wide variety of needs. By understanding the reasons for your taking action, you can select options tailored to your expected benefits.

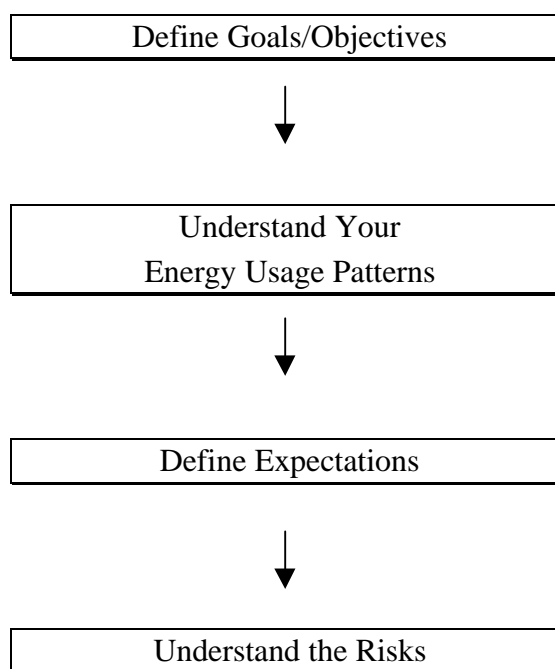
Before starting any efforts to change your electric services, understand what factors are driving your decisions. Questions to answer include:

- What are your goals for taking advantage of restructured market opportunities? Can you clearly define them?
- What are your energy consumption patterns? When you use energy may be more important than how much you use.
- Will you get a good deal on your own or should you try to aggregate, or join an existing group?
- What are your expected results? Are they reasonably achievable? Do they go beyond what other public agencies have achieved in the restructured market?

- What are the risks involved? Is your agency prepared to assume those risks?

The next section will help you answer these questions. A summary of the key issues is shown in Figure II-1.

Figure II-1



A. DEFINE YOUR GOALS AND OBJECTIVES

Before making any decisions, establish clear goals and objectives. Do not undervalue this step. Your goals and objectives will guide your subsequent actions and decisions. Having clear and understandable

objectives will make it easier to justify each decision as you go through your evaluation process. Because of their importance, allow adequate time to ensure that everyone involved in the decision process understands and agrees on these goals and objectives, and that the potential political implications and ramifications are understood.

Here are some key questions to ask to better define your agency's goals and objectives.

Are you changing services in order to:

- avoid volatile energy costs through stable and predictable prices?
- reduce energy costs?
- obtain better customer service?
- change or customize your energy billing process?
- support or lead a move toward use of environmentally friendly (e.g. renewable) energy resources?
- improve the reliability of your energy services?
- support the development of new competitive options?
- better understand your energy usage and service options?
- respond to an unsolicited offer?

There are numerous other questions you may need to answer to clearly define your goals and objectives. Talking with others who have been through the process or engaging qualified experts may be helpful. A number of potentially helpful contacts are included in Appendices A and G.

B. UNDERSTAND YOUR ENERGY USAGE PATTERNS

Understanding your energy usage pattern is a critical next step. Providing detailed information about your energy consumption to a supplier increases the likelihood of obtaining the best possible deal. Generally, if you have a relatively constant energy use pattern, you will receive a better deal than if your usage fluctuates or spikes during peak periods.

The best way to understand your energy consumption patterns is to create an annual load profile. This profile will show the demand patterns for every hour of every day over a 12-month period. Key items include the differences between your maximum and minimum usage, the time of the day, and the time of the year you use most of your energy. Usage that occurs predominately during summer daytime hours is generally the most expensive. This will be reflected in prices offered by a competitive supplier.

If you are going to aggregate a number of loads, understand the energy consumption and behavior for all members of the group. If you are considering joining an existing aggregation group where the savings levels will be dependent on the usage patterns of the entire group, make sure their patterns complement yours. If not, you may receive a better offer on your own. However, if your usage pattern has a lot of spikes, you could be better in an aggregation group.

While compiling detailed historical data for your agency's electricity accounts can seem overwhelming, it is a critical

step in the decision process. In many cases, your current electricity supplier can provide you with a load profile. If your organization is not familiar with managing and analyzing large databases of energy information, contract the data collection and evaluation to a third party. After your data review process, you should be able to clearly communicate the following:

- how many meters make up your total load;
- the number of meters by rate class;
- the time and amount of your maximum hourly usage (in kW);
- the typical difference between your maximum and minimum hourly usage (in kW);
- your total annual energy consumption (in kWh); and
- your annual load factor (which is the ratio of your average load to your annualized maximum load).

If your agency doesn't have data for all accounts and meters expected to be part of the aggregation program, request it from your local utility or extract it from your utility bills. Your utility can provide 12 to 24 months of usage history free of charge. Requests for this data are usually processed within 30 to 60 days.

Some agencies have experienced problems verifying the accuracy and completeness of data from their utility. Work with the utility to verify the usage and billing data. Make any corrections to account for missing or inaccurate data.

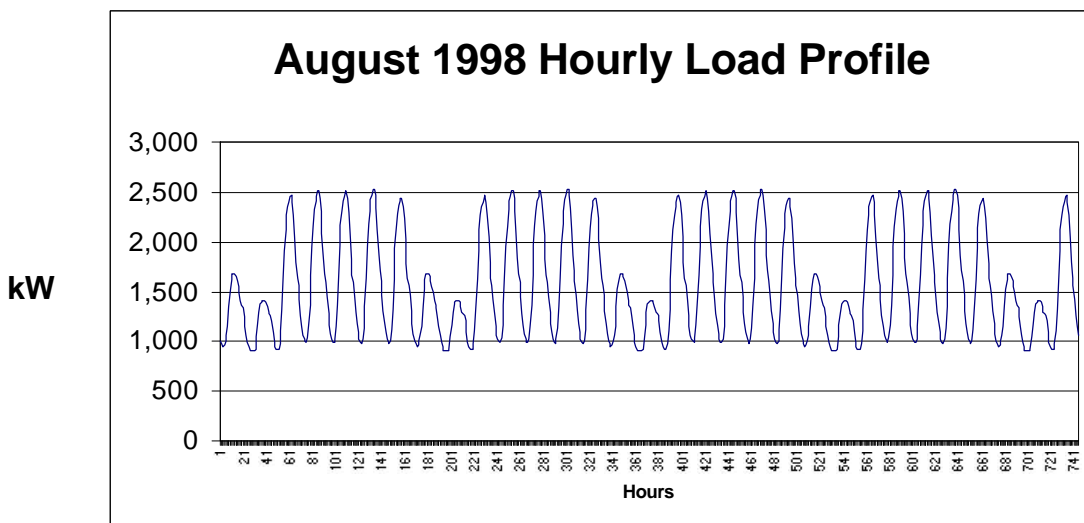
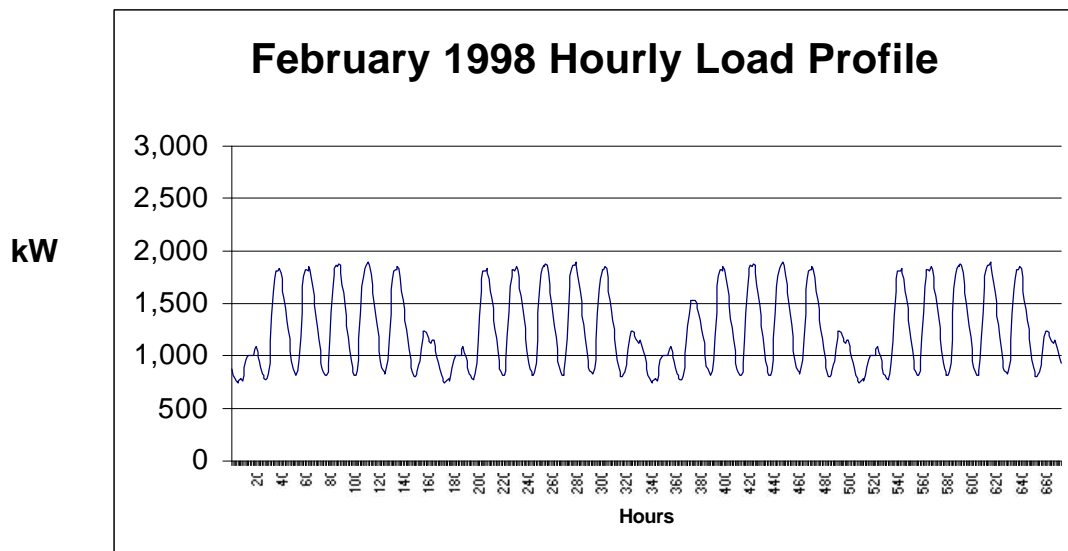
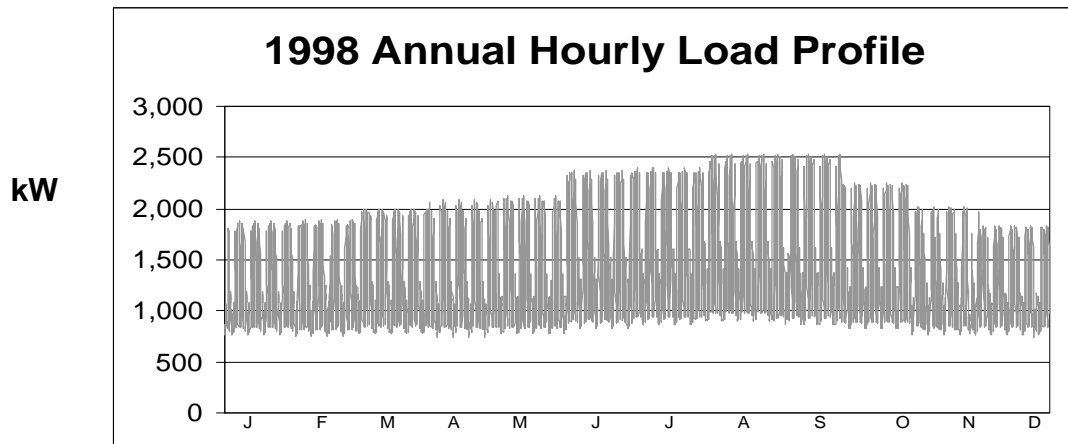
One way to keep mistakes to a minimum is to specify the exact information you need. A sample form is included as Appendix E to this guidebook.

Most utilities provide standard information that is adequate though each utility's terminology for the same data may be slightly different. The information may not be delivered in a user-friendly format, so allow plenty of time to process and analyze the information in order to understand your usage levels and patterns. Appendix D contains a listing and explanation of the terminology found in utility bills. With the utility billing information, you should be able to use it to characterize your energy consumption and patterns in terms of total usage, kW demand and load factor of the aggregated use pattern. An aggregated load profile is a good way to demonstrate these characteristics. Appendix F contains summary tables that provide examples of effective ways to communicate this information.

A greater understanding of usage levels will allow your agency to develop a very informative Request For Proposal and Qualifications (RFP/RFQ) which, should lead to more responsive offers from suppliers. It will also give you an idea of potential metering costs due to the installation of direct access meters.

Figure II-2 shows example hourly load profiles for a typical municipal customer. These graphs show that the total annual electricity use is 11,927,796 kWh. The maximum hourly load of 2,533 kW is occurring in August and a minimum hourly load of 743 kW is

Figure II-2
Examples of Hourly Load Profiles for a Municipal Customer



shown for February. This load has an annual load factor of 53.7%. The monthly profiles are for the same customer for the months of February and August, respectively. In the monthly profiles, it is easy to see how the customer's load changes over the course of each day and the lower loads on the weekends are clearly evident. The difference between the daytime and nighttime loads as well as the difference between the maximum load in the summer and winter will be key determinants of the competitive prices offered to this customer.

C. DEFINE EXPECTATIONS

After you have defined your goals and objectives, and understand your usage patterns, it is equally important to define your expectations. To make the best possible decision, your expectations need to be realistic and reflect true market conditions.

As the market continues to evolve and mature, so will the types of offers and price offerings. Review the latest market conditions and keep abreast of the market changes.

Comparing your specific situation to that of other entities that have achieved energy savings is a simple and effective technique. However, recognize that market conditions can change rapidly. Competitive providers will respond to these changes in order to maintain an acceptable business risk/reward balance. This should directly impact the results you can achieve. Be flexible and adjust expectations as new market conditions dictate.

D. UNDERSTAND THE RISKS

Just as your energy objectives need to be clearly defined, so do your risks. The continued market restructuring means that all customers, even those that stay with the local regulated utility, will be exposed to new risks and changes in the way energy services are priced. Price volatility is but one of the risks you may face in the new competitive energy market structure. The key areas of risk include:

- price volatility risks;
- contract duration risks;
- risks of not being able to change suppliers;
- supplier non-performance risks; and
- risks of inaction or not paying attention to the evolving market.

Recognize these risks and understand that you will be exposed to many of them even if you stay with your current utility.

1. PRICE VOLATILITY - WHAT ARE COMMON COMMODITY PRICING STRUCTURES?

There are three primary types of pricing structures in today's energy markets. These include:

- fixed – a guaranteed price per kWh, regardless of any usage patterns or market conditions;
- indexed – a price that will rise or fall in relation to certain market conditions, often the Power Exchange (PX) price; and
- hybrid or portfolio – a combination of fixed and indexed pricing that

may fluctuate within a fixed price range or be linked to the cost of a specific set of generating resources.

More detailed information on Price Options is provided in Section III, B-Pricing Options.

2. CONTRACT DURATION - HOW LONG SHOULD MY CONTRACT BE?

Many agencies that have undergone an energy procurement process found it less risky to enter into a one to two year contract with the option to renew, as opposed to a longer three to five year deal at a marginally more attractive rate.

Having shorter contract terms with options also allows you to learn more about the competitive energy industry before making any long term commitments. Some of the uncertainties about energy prices will be resolved as the market matures. Having the ability to change suppliers as market conditions dictate, rather than being restricted by a long-term contract with initially better terms, is probably a lower risk strategy at this point in the evolution of the California market.

3. LIMITS ON CHANGING - WHAT IF I WANT TO SWITCH PROVIDERS?

Your contract terms should clearly explain the financial implications if you decide to switch suppliers or go back to the local utility. Many agencies that have gone through the process were able to negotiate terms that allowed them to switch with no penalty if a better offer was presented and proper notice was given.

However, one of the complexities of switching between providers involves

meters and meter reading. If you don't own the meters, your new and old energy service provider will have to negotiate the sale or removal of the meters. In some cases, new meters may need to be purchased in order for your new energy service provider or utility to read them.

4. NON-PERFORMANCE - WHAT IF MY SUPPLIER CANNOT MEET MY NEEDS?

A supplier's failure to perform could expose your agency to additional costs, because you'll have to go through at least some steps of the procurement process again. To protect against this possibility, some agencies have required their suppliers to post performance bonds or place cash in an escrow account that they can access under certain nonperformance situations. It is important to note that supplier nonperformance does not mean your electricity supply will be terminated. The Independent System Operator ensures that all consumers receive the power they demand. However, there may be financial consequences if your supplier fails to pay for power purchased on your behalf.

5. KEEPING UP WITH THE MARKET WHY DO I NEED TO PAY ATTENTION TO THE MARKETS ONCE A CONTRACT IS IN PLACE?

Just as understanding your electric usage is important to getting started in competitive energy procurement, staying aware of changes in the energy industry is equally important. There are hidden risks associated with lack of knowledge and inaction. If you do not make the effort to understand the restructured electric market, you may lose out on current savings or make energy consumption decisions that are

unnecessarily costly. And don't forget that there may be risks associated with doing nothing.

6. PROTECTING YOUR INTERESTS

Switching your electricity service to a new provider is a risk. However, the State of California has mandated several measures to protect you from providers that will not be able to meet their service commitments.

This protection is provided through registration requirements established by the California Public Utilities Commission (CPUC). The focus of these requirements is to ensure that energy service providers serving small customers are credible and financially viable and will be able to meet their service commitments. Also established is a process to investigate any alleged inappropriate operations or practices by energy service providers. Appendix A contains information on how to obtain this information from the CPUC web site.

Energy service providers serving only large commercial and industrial customers are not required to register with the CPUC. These customers are in a "buyer beware" situation, and it will be important to do appropriate additional research on a prospective energy service provider and the provider's offer.

E. IS DIRECT ACCESS FOR YOU?

Historically, public agencies that are most successful in entering into direct access contracts are those that had well defined goals and objectives, understood

their electrical loads and usage, and understood the risks and costs. Due to the complexities of evaluating proposals, reviewing contract terms, and negotiating a contract, many public agencies or aggregators have hired an independent consultant to prepare the bid documents, evaluate the proposals, and/or negotiate the final contract. Depending on the assistance needed, the consultant costs can range from \$10,000 to \$50,000 or more.

Even if you hired a consultant and responded positively to the questions raised in this section, you may still not be a good candidate for direct access nor be successful in negotiating a contract with an alternate provider. Some public agencies have gone through extensive evaluation and bidding processes and found few acceptable bidders. This is why it is good idea to contact public agencies that have gone through this process, to determine the reasons for their successes or failures in negotiating a direct access contract. A list of public agencies that have released bid documents soliciting energy service providers are listed in Appendix G. Once you learn the reasons for their past successes and failures and understand that future regulatory and energy market conditions can evolve and change, then you can decide whether direct access is for you.

III. YOUR ELECTRICITY CHOICES

For customers in investor owned utility service territories (Pacific Gas and Electric, Southern California Edison, San Diego Gas and Electric, Sierra Pacific Power, PacificCorp, Bear Valley Electric, and Mountain Utilities), the new restructured electricity market now offers many choices when it comes to your electricity service.

Local governments also have choices that give them and their constituents greater local control. For instance, they can play a role in delivering energy efficiency services to their citizens and businesses or can serve as an aggregator for those businesses and residential customers who wish to participate. Local governments also have the right to exercise their municipalization rights and authorities, or to support the formation of new municipal utility service providers.

In addition, you can choose to purchase green power to help the environment and support the renewable energy industry. And, as before, you can reduce your energy use by changing operation procedures or installing energy efficient equipment.

This section discusses the five major options of electricity procurement and includes:

- purchasing;
- pricing;

- metering and billing;
- green or renewable electricity; and
- energy efficiency and energy management.

A. YOUR PURCHASING OPTIONS

You now have four choices for obtaining electric services in California:

- continue to purchase your electric services from your existing utility;
- participate in direct access – buy power from a competitive energy service provider (ESP), broker, or power exchange;
- aggregate (combine with other organizations) to form a new buying group or pool; or
- create a municipal service organization to provide your electric services.

1. STAYING WITH YOUR EXISTING UTILITY

You can continue to rely on your current utility for electricity without doing anything. The utility will continue to provide power at rates set by the California Public Utilities Commission (CPUC) during the transition period, typically from April 1, 1998 to March 31, 2002. San Diego Gas and Electric ended its transition period in 1999. During the transition period, utility pricing will be “frozen” at the 1996

rates. After the transition period, the commodity portion of your bill will change with the Power Exchange (PX) price. It should be noted that in August 2000, the legislature and CPUC were considering options to change the transition period rate parameters.

If you want to participate in the competitive market, but don't want to switch to a new supplier, you can choose the utility's "Schedule PX", sometimes referred to as virtual direct access or real time pricing.

Schedule PX lets you buy power at market-determined, real time prices rather than at a rate that is based on the average consumption pattern of customers in your rate class. It will reward you when PX prices are low but will also expose you to the risk of higher prices that occur during times of peak demand and consecutive hot summer days. If you choose Schedule PX, you must install – at your expense – interval meters to record hourly usage.

Real time pricing may be a beneficial option if you use a greater percentage of energy in off-peak (lower priced) hours compared to other customers in your rate class. Real time pricing can offer significant savings if you have the ability to reduce energy use during peak periods.

2. CHOOSING A COMPETITIVE SUPPLIER -- DIRECT ACCESS

If you choose direct access, there are three key requirements in addition to the selection of a new supplier. First, a Direct Access Service Request (DASR)

must be filed with your local utility. This is a notification that you are going to obtain some or all of your electric services for the specified loads from a competitive supplier. Second, you must obtain the services of a Scheduling Coordinator. They will schedule your electric load supply with the Independent System Operator (ISO). Lastly, if your load is greater than 50 kW, you will need an interval meter that will keep track of your usage on an hourly basis. Your energy service provider should be expected to take care of all of these requirements as part of their competitive offer.

All energy service providers offer the electricity commodity, but many also offer packages of energy products and services. This may include billing services, meter reading, meter and meter servicing, energy audits, energy efficiency measures, and other energy related services. This is often referred to as a "bundled services" offering. The key question for you is what services you want and whether bundled or independent service offerings will best serve your specific needs.

The advantage of acquiring bundled services is that you can limit your procurement efforts to virtually one bidding process and select a single entity to provide multiple services. Your energy service provider will often maintain detailed information about your loads. That knowledge should give them the advantage of being able to identify measures that could reduce load or energy use. As many public agencies have found out, trying to transfer large amounts of end-use energy data from

one provider to a third party can be a long, time-consuming process.

The key disadvantage of bundled service offerings is that it is often difficult, confusing, and complex to evaluate the costs and benefits of each service. Also the energy commodity provider may not be the most competitive or most capable supplier of the other services.

Meters

If your electricity demand on a single account is greater than 50 kW, you are required to install interval meters that measure and record hourly energy consumption. The meter and installation cost range from \$400 - \$1500 per account. Alternatively, you can lease the meters from your energy service provider. You also may be assessed a monthly fee for meter reading and maintenance. Though these charges substitute for the utility's otherwise applicable meter charges, you need to include these costs in the determination of whether direct access is beneficial for you.

Currently, for any account where electricity demand is less than 50 kW, you can participate in direct access without purchasing a new meter. In the future, this could be reduced to 20 kW. Therefore, it is important to understand how your energy service provider would address this additional metering requirement if changes occur during the term of your service contract. These smaller customer accounts are assumed to have an hourly usage pattern represented by "typical" customers in the same rate class. This process of converting total monthly energy usage to

an hourly usage pattern is called load profiling.

Scheduling

Your energy service provider is required to handle the scheduling of generating resources to meet your energy usage. If your provider does not handle the scheduling themselves, they will contract with an approved scheduling coordinator. The provider purchases power supplies in bulk quantities for all its customers' loads from a variety of wholesale market options. When there are differences between the scheduled (pre-purchased) amounts and actual consumption by the customers, your supplier has to buy or sell power from a real-time market where prices can be quite volatile. To reduce price volatility, your energy service provider tries to closely match supplies with its customer's actual hourly consumption.

If you are billed based on real time pricing, you have the opportunity and may be able to reduce total energy costs by shutting off equipment quickly in response to high prices. However, this option requires you to monitor hourly energy prices and have the flexibility to implement a load shedding plan.

3. PARTICIPATING IN OR CREATING AN AGGREGATION

Aggregation means pooling your power needs with others to get "volume discounts" and sharing the startup and administrative costs. There are several aggregation programs offered by the state, joint powers authorities, universities, and other independently run programs. Before you start your own aggregation program, look at existing

groups to see if they will meet your needs.

In this section we'll examine the types of public sector aggregation programs and the possibilities for initiating new groups that could serve private citizens or companies.

Aggregation Programs

There are several existing Joint Powers Authority and governmental aggregation efforts. Most have focused on specific customers.

Joint Powers Authority

A Joint Powers Authority is a single entity formed by several independent groups, usually public agencies that wish to exercise common authorities. It is governed by law, has procedures in place to exercise its authority, and has a staff charged with specific tasks. A Joint Powers Authority allows its members to benefit from a larger organization; however, it only has the authorities that each member has independently. It also has an independent identity that allows it to act separately from its member agencies. For example, it is possible for a Joint Powers Authority to provide tax exempt financing without encumbering the total liability or bonding limits of its members.

Energy Cooperatives

Electric or energy cooperatives are non-profit corporations that can supply power to their members. Like Joint Powers Authorities, they are tax exempt and can borrow money at low rates. Cooperatives can include private businesses or citizens as well as public agencies. For further information, the

Energy Commission sponsors an Energy Cooperative Development program, which you can access via the website <http://www.energy-co-op.net/index.html>

Municipal Aggregation Programs

There are a number of municipalities, or municipal groups, that have developed their own aggregation programs. These programs are typically designed around specific goals and may include all or only certain energy accounts.

Some municipal led aggregation programs have considered including non-municipal customers in their programs. The benefits of including non-municipal participants include:

- the possibility of receiving a better price from an energy service provider due to offering it a larger load;
- the public agency leading the program may be able to get a marketing credit (a direct payment or a further price reduction) in recognition of the marketing costs avoided by the energy service provider; and
- positive community relations for the agency providing a value-added service to its constituents above and beyond what most cities offer.

The drawbacks of including private customers include:

- the difficulty of getting private customers interested;
- any uncertainty in who will actually join the program may be viewed as

added risk by the energy service provider;

- their electrical load and use maybe non-complementary to the usage patterns of municipalities in the aggregation and negatively impact price offerings; and
- the energy service providers lack of interest in smaller customers due to increased billing and metering costs.

Appendix C provides a summary of aggregation programs that have been created in the state. Your agency may meet the qualification requirements for joining one of them. Even if you do not, the programs can certainly offer you advice on how to most effectively set up your own program.

The California Department of General Services (DGS) provides a number of aggregated purchasing services for state and other public agencies. Because there might be savings from purchasing energy for numerous facilities under a single contract purchase, the Department of General Services created an aggregation program for governmental entities. The case study on page 16 describes the program.

4. MUNICIPALIZATION

Some communities are looking to traditional public takeover or municipalization of electric distribution systems as a means of enhancing their constituents access to competitive power services in the restructured market. A number of existing municipal electric utilities have demonstrated that they can provide competitive prices for energy

services in addition to the commodity service. The primary reason for municipalization is to take advantage of additional ways to reduce the cost of energy services.

Municipalization can be a major endeavor. There have been very few instances in which the existing utility service company has been receptive to a public takeover of their existing business and/or customers. And, the cost to the public agency could be significant.

There are two approaches typically considered by an entity wanting to create a municipal electric system. The first is forming a municipal service function within the existing municipal organization. The second is to form a new (or use the unexercised rights of an existing) special district such as a Municipal Utility District, Public Utility District, or Irrigation District, which is governed by an independent and locally elected Board of Directors. In either case, the new municipal entity will acquire, own, and operate the electric distribution system and thus provide all of the services of a traditional electric utility.

There are a number of both such entities throughout California and there are new entities that have been recently created. All of these entities recognize the need to offer electric services at prices below those offered by their customer's current utilities. The use of a municipal service organization is also a way for a local government to influence their communities commitment to specific renewable energy sources.

CASE STUDY

CALIFORNIA DEPARTMENT OF GENERAL SERVICES (DGS)

The objective of the DGS Electricity Services Program is to enable public sector customers to participate in the new competitive electricity market. The goal is to reduce customers' operational costs for electrical energy below the customer's default utility service provider. DGS also envisions opportunities to integrate commodity energy supply, new energy production and end use technologies, and enhance information on energy usage patterns, to provide customers with economical energy services.

Background

In November 1997, potential suppliers were invited to submit standardized bids for both bundled electrical services (electricity, schedule coordination, and revenue cycle services) and individual unbundled services under a three-year Master Services Agreement. In addition, suppliers were invited to submit offers for additional electricity services.

Status of the Program

DGS has amended the Master Services Agreement to open the "pool" of suppliers to new entrants. Several rounds of price quotations have been requested from suppliers as market conditions have evolved. However, no service orders for direct access to customer meters have yet been finalized with any of the energy service providers listed on the Master Services Agreement. DGS continues to review customer loads for economic opportunities in the direct access market and to negotiate with its suppliers to ensure verifiable customer savings from any direct access contracts.

Are Objectives Being Met?

To date, energy service providers' response to direct access has been disappointing. In DGS' estimation, this is the result of several factors, including high transaction costs, disincentives resulting from the way continuing traditional utility service costs are separated from their bundled rates, and uncertainties surrounding the business rules for the new market. DGS anticipates that the market may achieve greater depth and stability after the end of the rate freeze, when the post-transition ratemaking environment is more stable.

For more information on the DGS program, call (916) 322-8808.

Examples of recently established municipal entities include Merced Irrigation District and San Joaquin Irrigation District. Merced Irrigation District began providing retail electric delivery services in May 1996. South San Joaquin Irrigation District is anticipating it will be able to begin serving retail customers sometime in 2000.

A public agency wishing to form its own municipal electric system should consult with its County Local Agency Formation Commission.

Creation of a new electric service utility frequently involves the "condemnation" or forced sale of a portion of the existing utility's electric distribution facilities. This process is often politically and financially challenging to the public agency.

The experience of the Trinity County Public Utility District within Pacific Gas and Electric Company's (PG&E) service area is an example of a local entity having difficulties, but eventually succeeding in acquiring local electric facilities for the formation of a municipal system. The community of Hayfork, located in Trinity County, wanted to form its own municipal system and began the condemnation process of the PG&E facilities in its area. The condemnation results were appealed by PG&E in court before the facilities were finally acquired by the

city and eventually became part of the Trinity County Public Utility District.

In Calaveras County, a referendum on whether to form a municipal electric utility was defeated. However, the costs of pursuing the concept were borne by the local entities promoting the effort.

The case study on page 18, describes a more recent municipalization effort in Davis, California.

Another way to form a new municipal service entity is by the incremental establishment of the electricity delivery system infrastructure. In this approach, there is no need to acquire facilities from the existing utility. Rather, the new municipal provider builds the new facilities necessary to serve new customers and/or developments. In so doing, it is possible that some customers of the existing supplier will want to "switch" if the new facilities are located in such a way that this can be done economically.

There are circumstances where significant savings may be created by constructing new energy distribution facilities to serve multiple customers. In these cases, the new entity must simply have the authority to provide retail electric services in the State of California. Since private corporations do not have that authority (unless they become a regulated utility), the distribution facilities must be owned by a municipal entity with authority to sell electric retail power.

Case Study – City of Davis Municipalization Effort

In an effort to lower utility costs and focus on alternative and renewable energy, a grass-roots Davis organization, the Sustainable Utility Network Cooperative Inc. (Sun Co-op), began the process of creating the Davis Municipal Utilities District.

Municipalization options include:

- ✓ Act as a negotiator and secure lower rates for the customers of Davis by bulk purchase of energy and services;
- ✓ Join with Sacramento Municipal Utility District; or
- ✓ Become a full service utility provider.

Status

The first step is getting the proposition on the ballot. The ballot measure would ask voters to establish a specified geographic district and a board of directors. The Sun Co-op submitted to the Local Agency Formation Commission (LAFCO) the 889 pages of signatures totaling 4,024, in addition to the required application. In July 2000, due to a lack of information regarding a plan and fiscal analysis, LAFCO rejected Sun Co-op's request to put the municipalization proposition on the November 2000, ballot.

Lessons Learned

Forming your own utility district is extremely difficult. One great challenge is the lack of reliable information from any one source regarding legal guidance on the municipalization process. For example, more than 4,000 signatures were collected to place the measure on the ballot. It was understood that 10 percent of registered voter signatures (about 4,000 for Davis) were needed to qualify. However, it was later learned that, in fact, only 1,900 signatures were needed (only 10 percent of the number of people who voted in the last election, not including absentee voters).

To create a Davis Municipal Utility District, it will require the mobilization of people to support the idea of local control and a good economic study supporting fiscal soundness of the plan.

For more information write Dennis Dingemans, Coalition for Local Power, 645 C St, Davis, CA 95616.

The owner of the facilities then takes responsibility for providing power delivery services to each of its customers at rates that are competitive with the local utility's transmission and distribution rates. This is a viable option in developing areas where much of the utility infrastructure is installed by the developer. If the new area can be served without the use of the local utility's transmission lines, additional cost savings may be possible. The Mountain House community development northwest of Tracy is an example of a new development that is promoting this "incremental" concept.

The formation of new municipal service entities is governed by applicable sections of California laws. There are many pros and cons to each of the potentially available options. As such, anyone considering such a move will be well served by obtaining appropriate technical and legal advice at an early stage.

B. PRICING OPTIONS

The cost of electricity depends mainly on how much you use and when you use it. In existing regulated rates, demand charges and time-of-use differentials have a major effect on total cost. Small customers don't usually pay demand or time-of-use charges, but pay a higher unit cost than large customers. In this section we will start by looking at existing rates. We will explain typical rates for both small and large customers. Then we will look at other pricing structures offered by competitive energy service providers.

1. EXISTING REGULATED RATE STRUCTURE

Your electric bill is comprised of several components as discussed in Supplement 1. Direct access, however, is focused primarily on the commodity or generation component of the bill. In your current bill, this charge is calculated based upon the size of your load and your rate class.

For smaller customers, the bill is generally calculated by multiplying an average cost for electricity times the amount of electricity used during the billing period. The cost is independent of when you use the electricity. This average cost includes the cost of producing the energy.

For larger customers, the generation component is calculated as the sum of a demand charge and an energy charge. Both the demand and energy charge are time and season dependent. Typically the highest charges will occur in the summer between 12 noon and 6 p.m. The demand charge is intended to be a reflection of the cost of building a generation facility to meet your needs. For the large customer, the energy charge is much less than for small customers. This is because for small customers, the cost of building the generating facilities is included in the energy price, whereas large customers pay a separate charge.

2. NEW RATE OPTIONS

In the direct access markets, electricity costs are calculated differently and there is often only a generation component that includes both the commodity and demand charges. The following are the main pricing options.

(1) Fixed Pricing

This price structure offers the customer a fixed, known price for the electric commodity. It offers the least exposure to price volatility, although that reduced risk is usually reflected in a higher price. The electricity provider accepts the risk associated with the commodity price volatility during the period of the contract. This may be an attractive option for customers with a low risk tolerance, fixed budget constraints, or limited flexibility to respond to price swings.

(2) Indexed (Variable) Pricing

This structure links the price of the commodity to an agreed upon market index such as the PX market clearing price. Due to exposure to market pricing volatility, this option can be more risky if you do not have the ability to shift your load or curtail your use during high priced peak usage periods. This option is particularly attractive to customers who can shift energy consumption to take advantage of low off-peak prices while avoiding high price spikes during peak periods. However, there is a risk under this scenario, especially if you can't shift or reduce load during periods of high price spikes. For public agencies, with a set energy budget, this could be a problem. If you choose this option be reasonably confident that your agency can risk exposure to electricity price volatility during your contract period.

At the end of the utility transition periods, customers not choosing direct access will be subject to the price volatility of the supplies purchased by utilities on behalf of their customers, including the portion of supply from the

PX. Though this price volatility may be masked by the utility offering balanced payment plans or similar programs, there is usually a subsequent calculation that results in the entire price risk being borne by the customer.

(3) Portfolio Pricing

Portfolio pricing allows you to design a specific program with your supplier that has price volatility generally linked to specific resources. This approach will tend to mitigate, though not eliminate, price volatility. It requires that the supplier thoroughly understand your electricity use patterns so that their risks are minimized. If a supplier perceives a low risk of offering a lower price, he will generally do so. However, in many cases, it may be that the risk is simply being transferred to the energy consumer, for example through penalty clauses, if certain requirements are not met.

Despite how any pricing plan is structured, you must realize that protection from volatility has a price and exposure to volatility has risks.

C. METERING AND BILLING OPTIONS

Metering and billing services are now unbundled, meaning you don't have to accept services offered only by your traditional utility company. At the current time, you are restricted to receive these services from your energy service provider or its agent. If you do choose to receive offers for metering and billing, make sure the cost for these services are clearly separate from the energy cost. Unbundling the electricity

commodity from other provider services can be key to avoiding confusing and complex offers.

1. METERING

If you choose a new supplier, you may need to install a new interval meter before receiving your electricity service. If you need to install a new meter there are three ownership options:

- Customer owned – You can purchase a meter from the local utility, energy service provider or other company offering CPUC approved interval meters. Prices range from \$400 to \$1,500 including installation costs.
- Energy service provider owned – Many energy service providers include a meter leasing option bundled with the electric commodity service. Monthly leases can be anywhere from zero to \$40 per month.
- Utility owned – You can lease a utility-owned meter, paying a monthly fee for the installation and the cost of the meter. The fee will depend on the type of meter and contract length.

For governmental and small consumers, the trend to date has been for the service provider to take care of the installation, ownership, and servicing of any required new meters. The customer has been responsible for a lease payment that is negotiated as part of the service contract. In many cases, the customer has obtained the right to own the meter at the end of the contract, or they will have an

option to buy the meter at a pre-determined price. However, be aware of the possibility that any meters installed now may become obsolete in only a few years as new metering technology, with expanded data access capabilities, becomes available. Also, meter-reading capabilities vary with the energy service provider or your electric utility. Some public agencies that went back to their local utility found that the energy service provider supplied meters that were not compatible with the electric utility meter reading equipment. As a result, some public agencies had to buy new “interval” meters again.

Interval meter installation has been one of the more problematic aspects of direct access for some public agencies. Remote locations and installation scheduling problems have sometimes caused this step to take longer than anticipated. If you need new meters installed, take a proactive role early in the installation process to keep the schedule on track and ensure that the installed meters can be read by your utility in the event that you go back to them in the future.

2. BILLING

There are a number of billing options available. You can receive either one consolidated bill or separate utility and energy service provider bills. If you choose a consolidated bill, it will include charges for the competitive commodity as well as regulated delivery services. You can decide which entity will send you the bill. If you are participating in an aggregation program, you may choose to customize your bill from the energy service provider. For example, you may choose to receive one summary

bill for your entire program with a specified level of detail for individual participants.

Some direct access customers have achieved substantial savings through customizing billing services that reduced internal processing expenses. In one case, these savings exceeded their electricity cost savings.

For many of the aggregation programs, there is continued reliance on the existing utility provider to supply consolidated billing. This option eliminates the need to set up complicated data management and customer billing systems by the new provider, thus allowing focus to be on the provision of competitive commodity services. It is likely that competitive providers will develop their own billing system capabilities as the market continues to develop.

D. BUYING GREEN OR RENEWABLE ELECTRICITY

You may be asking yourself, “What exactly is green power?” Generally speaking, it is electricity generated from resources that do not run out, or are quickly renewed through natural processes. These sources include geothermal power, solar power, biomass, wind, and small hydroelectric generation facilities.

Green power, or renewable electricity, has proven to be a popular option for residential, municipal, and commercial customers in the new competitive electricity market. The Center for Resource Solutions estimates that about 90% of customers who have switched to

a competitive supplier are receiving green power. While the majority are residential customers, some high profile customers in the state, like the City of Santa Monica, City of Oakland, and Toyota Motor Sales USA Inc., have decided to meet their electricity needs by buying green power.

A customer who purchases renewable or green power from a supplier may not actually receive electricity from a green power plant. What actually happens is the green supplier agrees to purchase power in the amounts and proportions corresponding to the loads of the customers they serve, and they ensure that amount of renewable power is supplied into the state electric power grid.

How do I know I’m actually getting green power?

Both the California Energy Commission and the Center for Resource Solutions have programs that green power suppliers may use to document how much of their mix is renewable-based.

The California Energy Commission requires a “Power Content Label” from any supplier that claims that a portion of their supply is renewable energy based. The label, an example of which is shown in Figure III-1, shows the percentage of electricity from each source that the provider feeds into the grid for your accounts. You should request the label from each electricity provider you want to consider.

Figure III-1

POWER CONTENT LABEL

ENERGY RESOURCES	PRODUCT NAME* (projected)	1998 CA POWER MIX** (for comparison)
Eligible Renewable	55%	11%
- Biomass & waste	-	2%
- Geothermal	-	5%
- Small hydroelectric	-	2%
- Solar	-	<1%
- Wind		1%
Coal	10%	20%
Large Hydroelectric	11%	22%
Natural Gas	16%	31%
Nuclear	8%	16%
Other	<1%	<1%
TOTAL	100%	100%
<small>*50% of (Product Name) is specifically purchased from individual suppliers. **Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.</small>		
<small>For specific information about this electricity product, contract (Company Name). For general information about the Power Content Label, contact the California Energy Commission at 1-800-555-7794 or www.energy.ca.gov/consumer</small>		

The Center for Resource Solutions' "Green-e" certification program requires suppliers to have at least 50% of the electricity supply from renewable resources. Any non-renewable part of the product must have lower air emissions than the traditional mix of electricity from the utility. For more details consult the Center's website at <http://www.green-e.org/index.html>.

There are currently over a dozen competitive suppliers offering green power with varying degrees of renewable electricity in their supply mixes. The Center for Resource Solutions and the California Energy Commission have information on suppliers and their offerings on their websites. See Appendix A for website information.

What are the benefits of buying green power?

The main benefit of renewable power is it lessens pollution and other environmental impacts resulting from power generation.

Cities and public agencies buying green power can also enjoy the positive public relations aspects of "going green." Taking this step can result in positive publicity, as the city/agency will be seen as a progressive, caring member of the community. For entities that want to demonstrate their commitment to environmentally friendly policies, this is a proactive and demonstrable action for consideration.

What are the drawbacks?

Although a few suppliers may have originally offered renewable power at or below market rates, the main drawback of buying renewable power is that it is generally more expensive than the current power included in your electric bills. Typical residential customers may pay on the order of \$10 more per month for green power. Offers will likely be more expensive if you require new renewable generating sources, such as windmills, to be used or constructed by your supplier.

To support the renewable energy market, the California Energy Commission offers a consumer credit to customers who purchase green power. The credits are part of the State's Renewable Resource Trust Fund which is made up of monies collected from ratepayers of the three large California utilities. In dealing with a supplier, you need to be

sure and ask whether these credits are already considered in prices offered for renewable power.

The Customer Credit is distributed on a cent-per-kilowatt-hour basis to providers that deliver power from registered in-state renewable supplies. The credit amount is periodically reviewed by the California Energy Commission to determine whether there are adequate funds to sustain it through the transition period. The credit was initially set at 1.5 cents per kilowatt-hour, with an annual cap of \$1,000 per meter. For residential and small commercials there is no yearly cap. In November 1999, the amount was reduced to 1.25 cents per kilowatt-hour, with the cap remaining unchanged. And again in July 2000, the credit was further reduced to 1 cent per kilowatt-hour. This rate is effective from July 1, 2000 through December 31, 2000. Near the end of 2000, the Energy Commission will re-evaluate the credit level (and change it if necessary) for the period from January 2001 to June 2001. The process will be repeated in the spring of 2001 to set the credit level for July to December 2001.

One important new development concerning the existing consumer credit law specifically effects public agencies. As of August 2000, pending legislation, (AB 995), prohibits public agencies from being eligible to receive renewable consumer credits after January 1, 2002. After this date, cities, counties and other public agencies purchasing green power will no longer be eligible to receive this credit.

The City of Santa Monica is the first city in the United States to purchase 100% renewable energy for its own facilities. Santa Monica has also been a leader in taking advantage of the California Energy Commission's Emerging Renewable Resources buydown program as it has installed photovoltaic power sources to help meet City requirements.

The case study on page 25, describes the process the City went through to procure green power supplies to support the City's overall environmental plan.

Green Power Case Study – The City of Santa Monica

Santa Monica's objective was to purchase power from renewable resources for City-owned facilities as part of its larger Sustainable City Program. The City also wanted to conduct an outreach program to determine the level of interest of the City's various constituents in joining the renewable procurement program.

The City hoped its efforts would support emissions reductions and renewable generation sources in California.

Background

In November 1998, the City prepared an RFQ/RFP to request energy supplies for approximately five megawatts needed for City owned facilities and any potential additional load of the City's non-municipal customers. In mid December, the City received responses from 13 suppliers. The City reviewed each offer's generation source, pricing, structure, and the overall background of the supplier. (Refer to Appendix G for a copy of the RFQ/RFP).

Results

After an extensive interview and evaluation process, the City contracted with Commonwealth Energy Corporation for renewable power supplies. The contract is for one year and the City has the option to renew for four additional years. The City has just completed their first year contract and has renewed with Commonwealth for a second year. The California Energy Commission credit has allowed the City to enjoy favorable terms on its renewable energy expenditures.

The City conducted an outreach program and decided not to attempt to include non-municipal load in its program. Instead, they will act as an information source for any constituent who wants assistance in taking advantage of electric restructuring and purchasing green power.

Are Objectives Being Met?

The City is pleased with its green power procurement process and the results achieved with its supplier. By taking a proactive attitude and having clear and realistic expectations, the City has found a way to support its Sustainable City Program while controlling its electricity budget.

For more information on the City of Santa Monica's efforts, contact Susan Munves at : (310) 458-8229 or susan-munves@ci.santa-monica.ca.us.

E. ENERGY EFFICIENCY AND ENERGY MANAGEMENT

While potential significant savings from a restructured energy market may at this time be less than originally anticipated, public agencies may be able to enjoy savings sooner through reducing energy use especially during peak hours and increasing efficiency. The key factor to consider in determining whether to invest in conservation and efficiency is the payback period for the cost of investment. Many investments pay for themselves in two to three years. Because of the volatility of the restructured energy market at this time, it may be possible to save more money now, as well as in the long run, by investing in energy efficiency. This may be more cost effective than purchasing power from a third party provider.

Energy efficiency and load management are two critical areas to reducing your energy costs. Initially, restructuring focused on how much an energy user could save on the price of electricity. However, as more users switch to direct access, it is apparent that the customer's ability to save on energy costs is based less on the price and more on how you use and manage your consumption. Reducing energy costs can not be achieved by any single approach.

1. ENERGY EFFICIENCY

Energy efficiency and energy management options focus on allowing you to use less energy by being more efficient or by using energy at times when it costs less. In considering whether to procure competitive energy supply services, you should also consider ways to change or reduce your

energy requirements. Some energy service providers may be willing to offer these services in addition to energy supplies. However, when bundling these services together into one proposal, complex and confusing issues are added to the procurement process, especially in determining which offer is the most beneficial.

Energy efficiency includes both improving operating practices and replacing inefficient equipment. These strategies cut your entire energy bill, not just generation and billing costs. Many consumers have achieved savings of 20% or more. Some energy efficiency improvements are low cost, and can pay for themselves within a few years. Most energy efficiency measures in buildings also improve employee comfort and productivity, and increase the value of your facilities.

Many local agencies have used energy programs to assist with the installation of new equipment. Incentive programs that promote high efficient equipment help to further reduce the effective cost of energy efficiency investments. Loans and municipal financing are available with repayment schedules to match the savings created by the new equipment installation.

Examples of energy efficiency improvements include:

- Install automated devices that turn off lights and equipment when buildings are unoccupied.
- Optimize operating schedules for high energy use equipment.
- Convert existing lighting fixtures to more energy efficient lighting.
- Convert constant volume air handling systems to variable air volume systems.
- Incorporate natural lighting coupled with lighting controls to provide illumination where possible.
- Install variable speed drives for electric motor loads.
- Require energy efficient lighting and heating, ventilation, and air conditioning (HVAC) systems that exceed the Title 24 standards for new construction and replacement projects.
- Retrofit or replace old inefficient equipment or processes with new energy efficient ones.
- Evaluate efficiency of water pumps and motors. Replace with more efficient equipment as needed.

If you are interested in pursuing energy management and energy retrofits, you can refer to the California Energy Commission's energy efficiency web site listed in Appendix A or obtain copies of the following handbooks. See Appendix A for ordering information.

- How to Hire a Construction Manager for Your Energy Efficiency Projects (400-00-001E);
- How to Hire an Energy Services Company (400-00-001D);
- How to Hire and Energy Auditor to Identify Energy Efficiency Projects (400-00-001C);
- How to Finance Energy Efficiency Projects (400-00-001A); and
- Energy Accounting: A Key Tool to Managing Energy Costs (400-00-001B).

Before energy industry restructuring, the CPUC required utilities to provide rebates and run other energy efficiency programs. Some utilities continue to have incentive programs that can help pay for energy efficiency measures. California's restructuring legislation, AB1890, mandates the continuance of these programs (\$220 million per year) through the end of 2001. Recent legislation was passed to extend these programs to 2011.

If you are interested in initiating an energy efficiency program, talk with other agencies that have previously undertaken such efforts. Though your experiences and needs will differ, there are important lessons that can be learned from networking with other entities with similar interests and concerns.

One such entity is Riverside County whose experience is recounted in the case study on the following page.

Energy Efficiency Case Study

Riverside County

The objective was to implement energy saving projects that would reduce the County's energy cost while improving buildings operations and appearance. The energy savings from the projects had to pay for the projects.

Background

The County was interested in finding ways to reduce its energy costs and modernize its 30-year-old buildings. In 1995, the Energy Commission's Energy Partnership Program audited three buildings and identified energy saving lighting and heating, ventilating, and air conditioning projects that would reduce the County's energy cost by 40 percent. In 1997 the County entered into a performance contract with Siebe Environmental Controls, now known as Invensys Building Systems, to identify and implement energy saving projects in 29 county buildings. Approximately \$8.8 million in projects were identified. These included adding a thermal energy storage system, installing energy efficient fluorescent lighting, retrofitting HVAC components and updating building control systems. These large, quicker payback projects allowed the county to fund other infrastructure improvement projects, such as the installation of energy efficient windows and a roof. The performance contract guarantees that the energy cost savings will meet the project debt service.

Project Results

The County is now achieving savings through reduced monthly utility bills. The energy efficiency measures have resulted in reductions to the County's cost of energy services. The annual savings from the projects are estimated to be \$976,000.

Lessons Learned

The most important lesson learned was to take a proactive role in overseeing projects and working with contractors. This will keep minor problems from becoming larger ones.

Contact

For more information contact Bud Fish, Assistant Director, Department of Building Services, Riverside County

Telephone: 909-955-4800

Fax: 909-955-4828

2. MANAGING ENERGY USAGE

Since the energy you use during peak periods is more expensive, it makes sense to shift energy usage to off peak times whenever possible. One effective strategy could include the use of controls to regulate or shift energy use. Examples include use of thermal energy storage to shift all or part of a building's air conditioning requirements from peak to off-peak hours, or installation of a hybrid gas/electric cooling system. However, these alternate strategies are costly and a detailed feasibility study is needed to verify the costs and benefits.

3. CHOOSE THE BEST RATE SCHEDULE

If you decide to continue with your utility, investigate the utility rate schedules that are applicable to your facilities. Consolidating your accounts into a single account or meter could result in cheaper prices on a higher volume rate. Consolidation combined with owning a transformer or substation may qualify you for even lower cost higher voltage service rates. These options need to be closely evaluated.

Although utilities are required to offer you service under any applicable tariffs, they may not always identify the lowest cost services. Obtaining the services of

a commercial rate analyst may provide you with a more complete review of your rate options, including the feasibility of account consolidations and transformer ownership. The analysis can also help you understand options the utilities do not offer directly.

4. ON SITE OR DISTRIBUTED GENERATION

Distributed generation generally refers to any form of electric generation that is smaller in size than a traditional central station power plant. These can include natural gas-fired cogeneration, microturbines, photovoltaics, windmills, and other types of energy generation. These facilities are sited on a customer's premise or near the customer load. Traditionally, it has been used to serve primarily a single customer but there are applications where distributed generation has served many customers. Customers can use distributed generation technologies to support, or in some cases replace, generation received from a utility or energy service provider. The CPUC is currently conducting a major rulemaking proceeding on distributed generation interconnection rules, standby rate design, utility ownership options, and other factors that may influence the cost/benefit of distributed generation installation.

IV. COMPETITIVE POWER PROCUREMENT

After completing the analysis to determine if direct access is right for your organization, a "go" or "no-go" decision must be made. If direct access is right for you, then the competitive power procurement is the next step.

There are a number of steps to follow in order to gain the most benefit from your efforts. This chapter provides you with a chronological "checklist" of activities during the energy procurement process. A summary of these items and an estimated time line is shown in Figure IV-1.

A. THE REQUEST FOR PROPOSAL/REQUEST FOR QUALIFICATIONS PROCESS

The Request for Proposal/Request for Qualifications (RFP/RFQ) process looks challenging, but with a dedicated effort from start to finish, things should flow well. Following the steps in this section should allow your agency to manage the process effectively.

1. IDENTIFYING QUALIFIED VENDORS

To identify qualified vendors, check the California Public Utilities Commission (CPUC) website for registered energy service providers. See Appendix A for website information. Contact other public agencies that have already gone through the process; their insights and experiences can be invaluable. A list of potential contacts can be found in Appendix G.

2. TIMING OF SOLICITATION PROCESS

The timing of the procurement process can impact price expectations of both the supplier and the consumer. For example, releasing an RFP/RFQ in the spring and negotiating a contract just before the summer months could result in high electricity price offers. However, releasing an RFP/RFQ in the fall and negotiating prices in the winter could result in lower electricity price offers.

3. DRAFTING THE RFP/RFQ

The usage information you have compiled will help you develop a comprehensive RFP/RFQ with information necessary for bidders to make their best possible offers. As part of the RFP, you will want to solicit information that allows you to determine the qualifications of each bidder, and the level of quality and performance expected.

If you are just testing the market or feel you have the time, a separate Request for Qualifications (RFQ) can be done prior to asking for formal proposals. Whether you request the qualifications and proposal separately or together, just be sure the request clearly communicates what you are requiring in the responses.

Key components of a comprehensive RFP include:

- a description of the public agency or local government group;

Figure IV-1 Outline of RFP process

Activity	Estimated Timeframe
Drafting The RFP/RFQ	Week 1-12
Identifying Qualified Vendors and Publicizing the Solicitation	Week 13-14
Release the RFP/RFQ	Week 15
Obtaining Notice of Intent to Respond	Week 17
Holding a Pre-Proposal Conference	Week 18
Proposer Responses Due	Week 20
Evaluating Responses	Week 21 - 24
Requesting Additional Information	Week 22
Notifying Short Listed Proposers	Week 23
Preparing and Conducting the Interviews	Week 24
Selecting a Vendor	Week 25
* Negotiating a Contract	Week 25-33
Drafting a Contract	Week 34-39

- * The time shown here is the typical time it takes to negotiate a contract with acceptable terms, conditions, and price and have it approved by your board/council. However, most fixed priced offerings are only good for a short time, typically 1-5 days. Your agency must be able to decide in this time frame or forgo the fixed price offer.

- the objectives and expectations of the program;
- an outline of the solicitation process and schedule;
- a description of your usage amounts and patterns;
- the scope of services being requested (both required and optional);
- a response format;
- agency requirements (legal, contract language regarding insurance and indemnification, bonding, etc.). Include a clear identification of requirements that are non-negotiable; and
- the evaluation criteria you will use in determining qualified bidders and selecting winning proposals (give as much guidance as possible but recognize there is judgement in the process).

For your reference, a sample RFP/RFQ is included in Appendix F.

4. PUBLICIZING THE SOLICITATION

The RFP should be sent to all suppliers that have been active in the market, any supplier registered with the CPUC, and others identified in item one of this section. A certain amount of pre-marketing is always important to ensure the document is going to the right person

and that it will receive serious consideration.

It is important to note that only those suppliers serving residential and small commercial customers are required to register with the CPUC. Therefore, not all energy service providers are registered.

5. OBTAINING NOTICE OF INTENT TO RESPOND

Requesting a notice of intent to respond is optional; however, it can help your agency gauge the expected level of response and give you time to make any necessary adjustments in the process.

6. HOLDING A PRE-PROPOSAL CONFERENCE

A pre-proposal conference is a great way to further communicate your agency's specific needs, gauge the interest level in your bid, and answer potential bidder's questions about the RFP. Though this will add time to your procurement process, the value in getting better bids is usually well worth the extra time.

Experience has shown the effectiveness of pre-proposal conferences can be improved if the suppliers submit their questions beforehand. This allows you time to prepare useful responses for the meeting. It is highly recommended that you record the meeting and prepare a transcript that summarizes all the questions and responses. Your agency should distribute all information to all who received a copy of the RFP/RFQ. This ensures a level playing field for all suppliers and helps ensure responsive proposals.

7. COLLECTING RESPONSES

It is recommended that potential suppliers be allowed four to six weeks to respond to an RFP. If a pre-proposal meeting is held, the deadline for submitting proposals should be at least two weeks later.

8. EVALUATING RESPONSES

Evaluating responses may be one of the most difficult aspects of the entire procurement process. This will be the first time your agency will get a clear idea of whether or not your objectives can and will be met.

Public agencies that have gone through this process before say that in general, proposals are not as responsive as other types of procurement efforts. Because the electricity market is in its early stages, many suppliers are trying to establish their role and understand how they can provide unique value-added services in responding to competitive energy service solicitations. Also, some suppliers seem to have standard responses to all RFPs, resulting in an offer that is not tailored to your agency's particular needs.

All agencies should expect to receive responses that at first glance are not easily comparable to each other (though use of a form as shown in the sample RFP will help). They will have different pricing structures, offerings, and timeframes. It will be necessary to translate each offering in a format that will allow side-by-side comparison. At that point, a true evaluation of the proposals can begin.

Some of the major points to examine include:

- commodity costs;
- metering costs;
- billing costs;
- renewable generation credits;
- guarantees on total cost savings;
- contract timeframes; and
- other value added energy services.

This initial evaluation process is designed to screen out those responses that do not meet your objectives and do not warrant additional consideration.

9. REQUESTING ADDITIONAL INFORMATION

Your evaluation process will likely produce additional questions for some energy service providers. Any supplier that is serious about your program will be responsive to your request. All requests for additional information should be in writing and all responses from suppliers should be in writing. Give the supplier a week to ten days to respond to questions.

10. NOTIFYING SHORT LISTED PROPOSERS

Once the evaluation of the responses is complete, you can then interview the best potential suppliers in person. Create a "shortlist" of the two to four best respondents that could truly meet the objectives of your program.

You should also notify those firms that were not "short-listed." They should be thanked for contributing to your process and encouraged to participate in future RFPs.

11. PREPARING FOR THE INTERVIEWS

Before the interviews are conducted determine exactly what information you want from the interviews. Specific questions should be prepared based on the RFP responses. Make sure your priority issues are addressed and that all key individuals in your agency are involved in preparing the interview questions.

12. CONDUCTING THE INTERVIEWS

Plan on each interview taking about one to two hours, and everyone involved in the decision-making process should attend.

In the course of the interviews, you may receive “new offers” from the potential energy service provider. This will frequently be the result of understanding your most important criteria more clearly. For example, the energy service provider may be including a service or risk mitigation measure that is of no interest to you. By removing that from the proposal, the cost should go down. It is important for you to determine, prior to the interview, how you will consider such modifications or clarifications. You should request that any “new offers” or “cost saving options” mentioned at the interview be put in writing if they are going to be considered in the final decision.

B. SELECTING A VENDOR(S)

Now that your agency’s objectives and expectations are clearly defined, you’ve completed a thorough evaluation process, and met with potential suppliers, the final selection of a vendor should be a fairly straightforward process. However, going through the procurement process is not a guarantee

that your savings objectives will be met or that you will be best served by accepting one of the proposals.

C. NEGOTIATING TIPS

Once you select a supplier, you need to negotiate the final details of the agreement. The negotiation phase is critical, as it will have a direct bearing on your cost savings and other important program objectives.

Some basic tips to follow when negotiating with a potential supplier include:

- understand your assets as a potential customer (size of load, strategic load for market entry, attractive load profile, long term potential customer, etc.);
- know each supplier’s target markets and historical marketing strategies so you can obtain assurance your interest will be a high priority;
- find out what issues are negotiable with the supplier;
- collect market information on offerings to comparable organizations; and
- identify areas where your organization has flexibility (term, qualifications, price, etc.)

One problem faced by public agencies is the ability to give quick approval on price bids and offers to suppliers. Electricity prices are constantly

changing and suppliers cannot hold their offers open for 30-60 days like other commodities. The typical “holding period” for most offers might be just 1-5 days. Your agency must be able to respond within this period. Some agencies have tried to expedite the approval process within their agencies by obtaining advance approval to enter into a contract with a specific fixed price determined in advance.

D. DRAFTING THE CONTRACT

Drafting the contract is a fairly specific process that will likely involve legal staff from both your agency and the supplier. Great care should be taken to eliminate any ambiguities. Those sections that should be clearly defined and stated include:

- services to be performed by the supplier – commodity, energy management, billing, etc.;
- pricing information, including guaranteed savings, incremental savings, price calculation, responsibility for obtaining and providing renewable credits, and responsible party for load imbalances and congestion charges;
- scheduling coordination services;
- designation of resource supplies (i.e., particular renewable resource types such as wind, etc.);
- ancillary services;
- meter installation, meter service, and meter reading – who will pay for them and when they will be installed;
- who will complete and file the Direct Access Service Requests (DASRs);
- billing – will either the energy service providers or utility distribution company provide consolidated bills or will their bills be separate;
- access to meter data;
- energy quality/reliability;
- contract effective date;
- term of contract;
- guarantees – low price, price matching, etc.;
- performance bonding requirements;
- permits, licenses, and certifications;
- contacts for routine communication;
- auditing and records inspection;
- default or termination clauses;
- marketing and solicitation uses – use of agency’s name for vendor’s promotional purposes;
- aggregation fees if applicable;
- performance measures and performance reporting requirements and identification of conditions, if any, when performance is excused;
- penalties for nonperformance; and

- standard agency contract clauses - such as indemnification, insurance, assignment, liability, laws, venues, attorney's fees, and force majeure.

E. MANAGING THE TRANSITION FROM THE LOCAL UTILITY TO THE NEW SUPPLIER

There will be a transition period when things may be a bit rocky as your meters are switched, the required paperwork is submitted, and billing issues are resolved. Take a proactive role during this period to ensure that the program stays on track and power is delivered under the contract as soon as possible.

Despite all of your efforts to maintain the schedule, there will probably be some unexpected delays. Some public agencies have experienced lengthy delays with meter installation. Initial billing rarely goes as smoothly as expected. As the market matures and suppliers gain more experience, these delays should be significantly reduced. However, any time you are dealing with a new entrant to the market, you should expect some delays especially if you have a significant number of accounts and requirements for a significant number of new meters.

F. VALIDATE THE BENEFITS

It is important to have some way to confirm that contractual obligations are being met. Make sure the supplier sends a monthly or quarterly update detailing savings levels, renewable resource percentages, etc. This validation will be the only way to be sure that the objectives of your program are being met. It will also help you decide on possible contract extensions and future

budgeting requirements. Consider hiring an independent firm to verify savings rather than relying on the supplier.

G. MONITOR PROJECT RESULTS AND INDUSTRY CHANGES

The final step is continuous monitoring of the programs' status and the energy industry conditions. The level of monitoring will depend on your resources, but a small time commitment can keep minor concerns from turning into big problems. Furthermore, a general understanding and following of the industry may reveal further savings opportunities as the transition period ends and competitive service options continue to develop.

The San Diego Association of Governments (SANDAG) has recently completed the power procurement RFP process. Their experience is outlined in the case study on the following page.

Power Procurement Case Study – San Diego Association of Governments (SANDAG)

The initial objective of the San Diego Regional Power Pool (Power Pool) was to position local governments and other public agencies in the San Diego Region to take maximum advantage of the potential cost savings and benefits of electric industry restructuring. Aggregation, or pooling, had the potential to provide significant monetary savings on electric energy.

Background

The San Diego Regional Power Pool was formed in June of 1998 under the auspices of SANDAG, the regional planning agency for local governments in San Diego County. Composed of 84 public agencies including local governments, water and sewer districts, fire districts, school districts, transit authorities, and the Port of San Diego, the San Diego Regional Power Pool encompasses approximately 5,000 electric accounts with annual energy consumption in excess of 533,000,000 kWh and yearly electric bills in excess of \$21 million.

As early as November of 1996, SANDAG began holding meetings and workshops to educate the agencies on purchasing pooled power, and to analyze the benefits and drawbacks of aggregating in a deregulated electricity market. In September of 1997, SANDAG and the Ad-hoc committee issued an RFQ/RFP for providing power and related services, and in May of 1998, Commonwealth Energy Corporation was chosen as the Energy Service Provider (ESP). The one-year bilateral contract between Commonwealth and Power Pool member agencies provided a discount of approximately 2.5% from the market electricity value (PX). The contract also provided for four one-year extensions following the original term.

Current Status

The original one-year contract between Commonwealth and the San Diego Regional Power Pool ended on June 30, 2000. Commonwealth advised the Power Pool that they could no longer serve the Power Pool under the same terms and offered to renegotiate new terms of the contract. In March 2000, the Power Pool issued an RFQ/RFP for a new energy services provider.

Between March and June 2000, the Power Pool evaluated several proposals. Of the three ESPs interviewed, one was selected to continue negotiations with the Power Pool. However, current volatility in the retail energy market, especially

in San Diego, resulted in the Power Pool reconsidering negotiating a contract during the summer season. Any further negotiations would be deferred until Fall 2000.

Challenges and Lessons Learned

Power Pool members expected to receive offers similar to their original contract (i.e. a discount from the PX). However, none of proposals offered a discount. A few offered a fixed energy price while others offered energy and risk mitigation services, but no guaranteed energy price. Discounts from the PX, or guaranteed savings, are no longer being offered in a region where consumers are susceptible to the volatility of market prices.

The biggest challenge facing the Power Pool was interval metering. Current Direct Access rules require that only the Utility Distribution Company (UDC) can read the meters for bundled-service accounts. It was discovered that SDG&E could only read about 300 of the 700 interval meters. Therefore, 400 of the 700 meters would have to be changed in order to switch back to UDC bundled service. Ultimately, SDG&E, the Meter Data Management Agent (MDMA) and Commonwealth negotiated an agreement to retain the meters for up to three months, while the Power Pool negotiated a new contract. Because the Power Pool has decided to delay negotiations until Fall 2000, those members electing not to negotiate a separate contract with an ESP will have to have their interval meters changed to a meter that can be read by SDG&E.

In its RFP, the Power Pool requested that bidders provide any additional value-added services such as energy efficiency or bill reporting options. Few proposals addressed value-added services in a meaningful manner. Those bidders offering energy efficiency would outsource the work to a third-party energy services company. The Power Pool concluded that it would be best to issue a separate RFP requesting energy efficiency services and will be considering such strategies in the Fall 2000.

Points of Contact

For more information on the San Diego Regional Power Pool, contact Steve Sachs, SANDAG, at (619) 595-5346, or Susie Sides, San Diego Regional Energy Office, at (619) 595-5634.

V. NATURAL GAS PROCUREMENT ISSUES

A. NATURAL GAS RESTRUCTURING BACKGROUND

The restructuring of the natural gas industry in California preceded state electricity restructuring. Prior to changes in the market, the gas industry was made up of gas producers, interstate pipeline companies, and local distribution companies.

Typically, natural gas producers would sell gas to the pipeline companies, which would then sell and transport it to local distribution companies, which in turn would sell the gas to the end use customer.

The market structure began to change in the mid-1970s, becoming more competitive. Changes since then have included:

- The 1978 Natural Gas Policy Act restructured natural gas production to eliminate price controls, resulting in market-determined gas prices.
- Order 436 (issued in 1986) by the Federal Energy Regulatory Commission provided for an open access gas transportation program. It also allowed local distribution companies to transport their independently procured gas. This permitted local distribution companies and end-users to purchase competitively priced natural gas

supplies and negotiate separately for transportation of those supplies.

1. HOW IS THE MARKET BEING RESTRUCTURED?

In 1988, the California Public Utilities Commission (CPUC) began restructuring the natural gas market in California. Natural gas customers served by local distribution companies were divided into two classes - core and noncore.

Core customers are defined as those customers consuming less than 250,000 therms a year or 20,800 therms per month. Individual core customers continue to receive bundled service from their local distribution company. However, through the CPUC's Core Aggregation Transportation Program, customers who can aggregate themselves into gas volumes of more than 120,000 therms per year can procure gas supplies from alternate suppliers on a more or less equal footing with noncore customers with gas transported by the local distribution company.

Noncore customers use more than 20,800 therms per month. These customers are generally large commercial or industrial users and wholesale gas suppliers. Noncore customers are allowed to procure gas supplies from companies other than the local distribution company and have the gas transported by the local distribution company.

Most importantly, noncore customers are not guaranteed to receive all of their gas during shortages, unlike core customers. This means that noncore customers need to plan for “curtailment” conditions. Although curtailments happen infrequently for firm noncore customers, they can occur and customers need to consider the impact of a supply interruption on their particular needs for uninterrupted gas service. Customers taking interruptible noncore gas service are subject to curtailments but receive significantly lower prices in return.

When curtailment occurs, some customers can simply shed non-essential gas usage. Critical loads might call for some kind of back up, either gas storage or fuel switching. For example, you could have an on-site diesel or propane-fired boiler or your boiler could operate on other fuels, in the event you do not have natural gas. Alternatively, the noncore customer can purchase local natural gas storage from its local distribution company.

California local distribution companies serving natural gas customers include:

- Pacific Gas and Electric Company - Serving over 3.5 million gas customers in Northern and Central California;
- San Diego Gas and Electric Company - Providing natural gas to approximately 800,000 customers in San Diego County; and

- Southern California Gas Company - Serving over 4.8 million customers from Central California to the Mexican border (San Diego Gas and Electric Company and Southern California Gas Company are operating subsidiaries of Sempra Energy).

2. EMERGING TRENDS

Though the gas market went through restructuring earlier than electricity and, from certain technical perspectives, is an easier commodity to manage in a competitive marketplace, changes continue to occur in the regulatory structure. California Assembly Bill 1421, enacted in April 1999, requires each natural gas local distribution company to provide bundled basic gas service to all customers using less than 250,000 therms annually (core customers), unless that customer chooses to receive gas service from a different supplier. This is intended to ensure that all core customers continue to receive basic gas service in a competitive market structure without having to switch to another supplier either through an aggregation program or on their own. The need for this type of legislation is a reflection of the continuing concern that the primary beneficiaries of gas restructuring will only be the large consumers and that small customers must be protected in order to ensure service is available.

The use of distributed generation and cogeneration of heat or steam and power is another important trend in California. This has important implications for the pricing of gas, and procurement of the commodity and its transportation.

As the industry continues to evolve and customers become more proactive in finding ways to improve their position, suppliers will be forced to respond in order to survive the challenges of new ideas and new entrants. The result will be a level of constant change in the new competitive market structure.

3. COMPONENTS OF YOUR SERVICE

Core and noncore customers have two general components of their gas service.

- Natural gas – The actual natural gas commodity is similar to the generation component of your electric bill. This is the portion of your gas service that can be procured from a competitive supplier.
- Intra-state transportation services – This service provides for the delivery of the natural gas commodity to the end use customer. This component of the service continues to be provided by the traditional gas utility company – except for “backbone” lines.

Noncore customers and aggregated core customers can also make use of a utility’s storage service (also known as a banking service). This storage service allows you to purchase gas during lower price periods (typically the summer months) and have the utility store it for you until it is needed. Storage also serves as a source of supply when interstate supply cannot meet in-state demand.

There are typically three charges for the storage service:

- a reservation fee for the volume of space reserved for your individual use;
- a fee for “injecting” the gas into storage; and
- a withdrawal delivery charge which represents the variable cost for providing the service.

B. NATURAL GAS CHOICES

As with electricity, you have the option to purchase your gas commodity service from a competitive supplier. This is a strictly voluntary option, at least for small (core) users. Any small customer can elect to keep purchasing all of their natural gas needs from their local distribution company. In fact, Assembly Bill 1421 requires each natural gas local distribution company to provide bundled basic gas service to all core customers unless that customer chooses to receive gas service from a different supplier.

After March 2001, commodity services for noncore Pacific Gas and Electric customers will cease. These customers can retain core commodity service from Pacific Gas and Electric or choose to buy gas from a competitive supplier.

In addition, if you elect to switch to a competitive supplier you may also return to the local distribution company. Once you switch back you cannot switch again within one year. This is designed to prevent frequent switching.

Any decision to switch depends on a number of factors. You should probably consider switching to a competitive

supplier if you can answer yes to each of the following questions:

- Do I have any noncore (greater than 250,000 therms per year) accounts?
- Are my expectations in terms of price reductions actually achievable?
- Have I investigated all of my options relating to my natural gas needs?
- Do I have a baseline savings level requirement and will this be achieved by switching suppliers?
- Do I thoroughly understand the contract terms from a competitive supplier's offer, including the possible exposure to price volatility?

Few core customers in California have switched to a competitive gas supplier. While specific numbers are not available, small commercial customers appear to represent the majority of core customer participants.

On the other hand, most noncore customers have switched to non-utility gas suppliers because they have been able to reduce gas supply costs. Most large industrial customers entered into specific contracts but aggregation programs have been popular with governmental entities.

If you do decide to switch gas suppliers, here are some issues to consider:

1. PROCUREMENT PROCESS

The natural gas procurement process is generally similar to that of electricity. You will need to establish your procurement goals, understand your usage levels, and begin the procurement process either alone (noncore) or as part of an aggregation process (core and noncore). As with any competitive procurement process, you also need to understand key issues and risks faced by prospective suppliers. In gas procurement, one of the issues is seasonal variation in gas prices. The expected seasonally gas price should be implicitly reflected in an offer for an annual gas supply contract. However, the timing of the procurement process can impact price expectations of both the supplier and the consumer. For example, negotiating a contract before the winter months when there are forecasts of extremely cold weather may result in bids/offers with higher prices compared to a similar process in the spring after a very wet and mild winter. A properly designed procurement process should allow you to obtain competitive proposals that properly balance these varying expectations but it will still need your attention during the final price negotiations.

2. WHO DO I BUY FROM?

Core Customers – Those core customers who are able to aggregate themselves into gas volumes of more than 120,000 therms per year can procure gas commodity supplies from competitive suppliers. Transportation services will continue to be provided by the local distribution company. Some core customers may also be able to join an existing gas procurement aggregation

program. Billing for core customers who aggregate can be more complex.

There are two types of core transportation aggregators. The first is a private sector for-profit gas supplier, while the second type is a governmental “co-operative” – with two very different forms of management and goals. In addition, each local distribution company has specific requirements as to who qualifies as a core transportation aggregator.

Noncore Customers – Any noncore customer can procure the commodity portion of their gas service from a competitive supplier. Intrastate transportation services will continue to be provided by the local distribution company. Interstate transportation to the local distribution company’s pipeline can be purchased along with the commodity or separately. If it is separate, either the customer or its supplier must schedule transportation on both local and interstate pipelines.

Your local distribution company and the CPUC also have information on competitive gas suppliers in your area. See Appendices A and C for more information on this topic.

3. EXPECTED SAVINGS AND RISK MANAGEMENT

Your savings depend on a number of factors. Savings will vary between aggregated core and noncore customers. They also will vary significantly from year-to-year with changes in both market conditions and the regulatory environment. Changes to a local distribution company’s rate structure will also affect savings levels. In addition, there is also the possibility for a significant variation within each local distribution company service area.

Managing the price risk associated with procuring gas from a competitive supplier is as important, if not more important, than overall expected savings. In fact, additional price risk can be introduced when savings quoted from a supplier are based on spot market prices. In other words, although the savings quoted might be two or three percent, unexpected market swings could eliminate savings and even result in costs being higher when compared to monthly or other longer-term benchmarks.

The case study of the following page describes the gas aggregation program operated by the California Department of General Services.

Gas Procurement Case Study – Department of General Services (DGS)

Project Objective

To offer public sector, noncore gas customers in the Pacific Gas and Electric and Southern California Gas territories the benefits of participating in a large-scale procurement program. Currently, DGS does not offer San Diego Gas and Electric customers this program, but expects to in a few years.

Background

The Program currently has 119 members who use approximately 150 million therms of natural gas per year. Program members include state agencies (70 percent), school districts, cities, counties, special districts, and community college districts.

The Program spends approximately \$46 million annually on natural gas. This figure includes expenditures for commodity services (which DGS passes on to the suppliers), transportation services (which DGS passes on to the local distribution companies) and a DGS fee of 0.65 cents per therm. DGS also offers a storage service for interested members. The Program offers members the opportunity to join the Program for either a one or three-year period.

Status of the Program

The program is ongoing and currently procures gas supplies for its members on an annual basis. DGS is considering taking advantage of tax-exempt financing possibilities and procuring a portion of its gas needs under a five-year contract when market conditions allow.

Are Objectives Being Met?

Yes. DGS is offering its members price certainty for its gas requirements under an acceptable long-term risk/reward framework.

For further information on the DGS gas procurement program, contact Marshall Clark at (916) 324-1283 or by e-mail at marshal.clark@dgs.ca.gov

SUPPLEMENT 1 – CHANGES IN THE ELECTRICITY MARKET

In 1996, the structure of the electric utility industry in California was significantly changed. For customers in investor owned utility service territories (Pacific Gas and Electric, Southern California Edison, San Diego Gas and Electric, Sierra Pacific Power, PacificCorp, Bear Valley Electric, and Mountain Utilities), the electric market structure changes were mandatory and implementation began in the spring of 1998. For publicly owned utilities, the decision is left to the local governments. The governing body of municipal utilities must determine whether they wish to open their system to the competitive market. Thus the changes described in this section do not necessarily apply to customers of public utilities, such as municipal utilities and irrigation districts.

Parts of the electricity industry are being changed from a highly regulated monopoly structure to a more open and competitive market. The generation of electricity will be more competitive, as will metering and billing, while transmission and distribution will remain regulated.

A. REVIEW OF CHANGES IN THE ELECTRICITY MARKET

1. MONOPOLY FRANCHISE: PRIOR TO 1998

Under traditional utility regulation, customers purchased electricity from a utility according to a specified rate schedule. The rate was a bundled price that included all costs for generation, transmission, distribution, and related

services and programs. A regulatory process approved all costs. Investor owned utilities had defined service areas with an obligation to provide service in accordance with their approved tariffs.

For more information on typical customer characteristics and rate schedules, see Table S-1 and Table S-2 on the following page.

2. TRANSITION TO CUSTOMER CHOICE: 1998 2001

Electricity market restructuring began in 1998, to allow customers the opportunity to choose a provider of electricity. In order to allow for an orderly change, a transition period was established. During this transition period, investor owned utility rates were capped at the June 1996 levels. Beginning January 1, 1998, residential and small commercial customers (defined as those with electric loads less than 20 kW) received a 10% reduction on their rates from the June 1996 rate levels. This was financed by bond sales to be paid back over 10 years. Larger commercial and industrial customers did not receive a rate reduction but did have their rates frozen at the June 1996 levels. This rate freeze will end for each investor owned utility no later than March 31, 2002. In August 2000, the legislature and CPUC were considering options to change the transition period rate parameters. During this transition period, there is a non-bypassable competition transition charge that is collected as part of the frozen rates. This is discussed in more detail in the following section.

Table S-1

**Typical Customer
Monthly Characteristics**

	Residential	Small Commercial	Medium Commercial	Industrial	Agricultural
Usage kWh	500	3,000	50,000	2,000,000	6,000
Demand kW	N/A	4	150	5,000	30 (40hp)
Sources: Various IOU tariff schedules and municipal utility web sites.					

**Table S-2
Rate Schedules Representing Customer Classes**

Utility	Residential	Small Commercial	Medium Commercial	Industrial	Agricultural
PG&E	E-1	A-1	A-10	E-20P	AG-1 (B)
SCE	D	GS-1	GS-2	TOU-8	PA-1
SDG&E	DR	A	AL-TOU	A6-TOU	PA
LADWP	R-1	A-1	A-2	A-3	N/A
SMUD	R	GS-27	GS-47	GS-TOU	AS-63
Burbank	R	C	C	P	N/A
Glendale	L-1	L-2	LD-2	PC-1-B	N/A
Pasadena	D	G-1	P	P	N/A
Source: Various IOU tariff schedules and municipal utility web sites.					

Many other changes are occurring. But most customers, because of the frozen rates, do not see these changes in the costs they pay. These changes include:

- development of a commodity market for electricity where the prices are readily verifiable by all participants in the market;
- costs for services are being unbundled and some costs reallocated to the various categories;
- investor owned utilities are recovering their investments in generating assets that will not be competitive in the new commodity market; and
- public purpose programs previously administered by the utilities are under the direction of the California Public Utilities Commission (CPUC) and the California Energy Commission.

3. CUSTOMER CHOICE: POST 2001

After the transition period, some customers will assume greater responsibility and risk of making energy services choices in the new competitive electricity market. If you do not select a third party provider, your existing local utility will continue to be the provider of electricity. CPUC decisions and proposed legislation may create or remove various protections that now exist to insulate customers from price shocks.

Because electricity is a commodity, the price will likely vary widely according to market supply and demand.

Electricity is unlike other commodities in that it cannot be stored; it must be consumed as it is generated. This feature is expected to result in more volatile prices that will react to seasonal and short term weather conditions. The stable price structure formerly offered by utilities will be replaced by changing commodity rates. Price stability may be available through negotiated contracts with competitive suppliers or through rate stabilization plans offered by utilities. However, this may increase your electricity cost above market prices at certain times because the supplier will assume the risk of higher prices. These new factors require customers to become more informed about their energy use and the options available in the energy market.

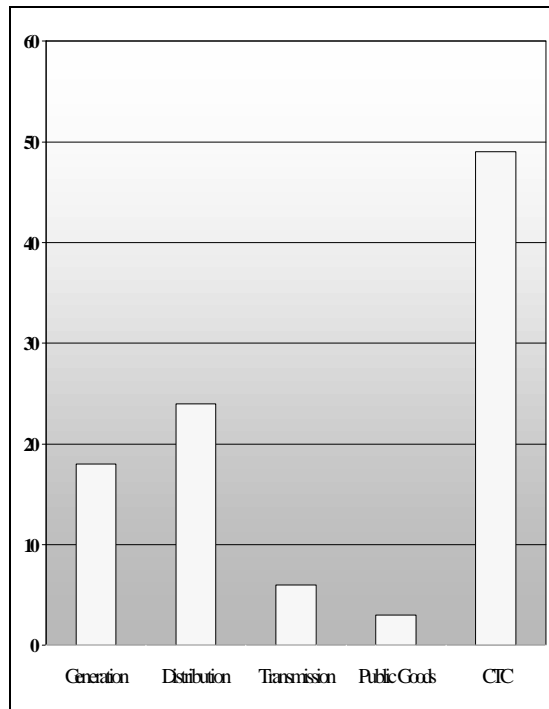
B. COMPONENTS OF ELECTRIC SERVICE

One way to understand the changing market structure is to look at a typical monthly electric bill. Your electric service is now divided into five major components:

- generation;
- distribution;
- transmission;
- public good charges; and
- competition transition charges (CTC).

Most public agency accounts are classified as small commercial, commercial, industrial, or public lighting. The following Figure on the next page, shows the percentage of how each of these components make up a monthly bill of a typical small commercial customer.

Figure S-1 Electric Bill Components



During the transition period the largest components are the CTC, generation, and distribution. In the future the competition transition charges will be eliminated, and the two largest bill components will be the generation and distribution components. Collectively, these two charges will make up 70 - 80 percent of your future electric bill. The next sections will describe each component of your electric service, explain the changes, and what it means to you.

1. GENERATION

The generation component of your electric bill is the actual energy that is delivered to operate your lights, equipment, and other electric devices. The generation component is one of only two portions of your electric service

currently open to competition. (The second is metering and billing).

Historically, your local utility provided the electricity you used either by generating it or buying it from outside sources. You paid the utility's cost of generating or procuring the power. These costs were reviewed and approved by the CPUC for customers of investor owned utilities, thus providing consumers a level of assurance that the costs were reasonable.

During the transition period, typically described as 1/1/98 to 3/31/2002, electric rates are frozen at 1996 levels. However, the investor-owned utility supplier's electricity purchase costs are not frozen and in fact vary hourly. The California Power Exchange (generally referred to as the "PX") determines the price they pay for electricity supplies. The PX price is the generation component of your electric service. The difference between the PX price and your "frozen" rate makes up the other electric service components, such as transmission, distribution, public goods, CTC, and other costs discussed previously.

After the transition period, competitive market forces will determine the commodity price you pay. This means you will incur higher prices for energy consumed when the demand for electricity is high and prices will be lower when demand for electricity is lower.

2. DISTRIBUTION

The distribution charge reflects the cost to send the electricity from the

transmission system to the end user. This also includes a small charge for reading your meter and billing each month. Although the metering and billing charges are a small percentage of your bill, they are currently the only other piece of your electric service where you have the ability to choose a competitive provider. Since January 1, 1999, customers that are participating in direct access have had the ability to choose their billing and metering providers. A customer receiving these services from an entity other than their investor owned utility receives credits for the amount the utility saved by not having to perform this service. The amounts will vary according to customer size and the credits will appear as line items on your bill.

The CPUC will still regulate the distribution system. As you can see in Figure S-1, distribution charges are a major cost component. If distribution is opened to competition, it could have a significant impact on your total costs for electric services.

3. TRANSMISSION

Transmission charges are a small percentage of most customers' electric bills. This charge reflects the cost to the utility company of sending electricity over the high voltage wires that connect the generating plants to the lower voltage distribution wires that come into your home or office. It is currently about four to six percent of your bill and will remain regulated by the Federal Energy Regulatory Commission.

4. PUBLIC GOOD CHARGES

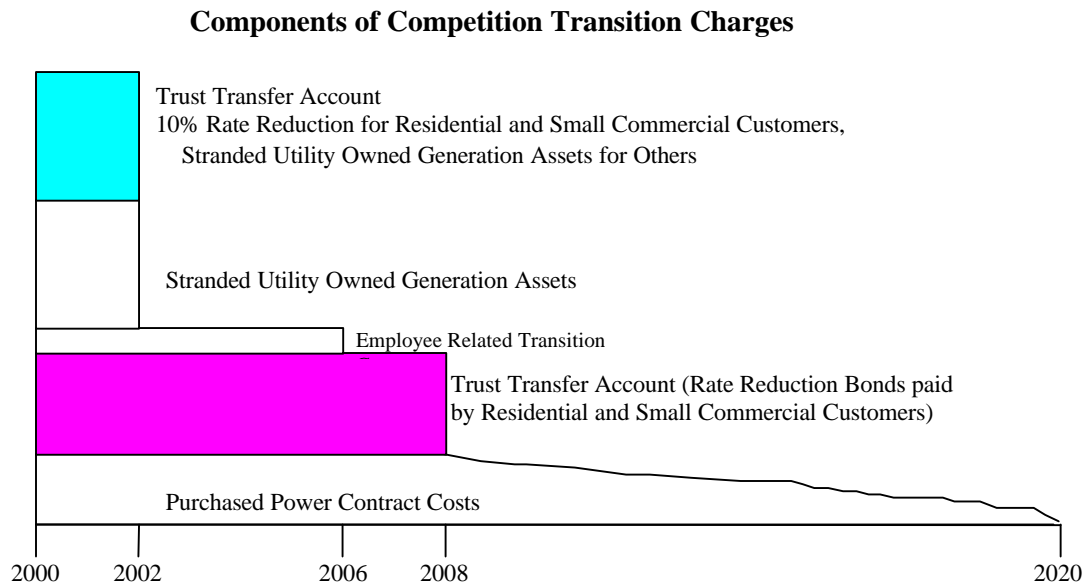
The Public Good Charges make up about three to four percent of a typical bill. This charge supports various energy efficiency, renewable energy, research, and low-income programs. Pending legislation (AB 995) will extend the collection of these charges to January 1, 2012.

5. COMPETITION TRANSITION CHARGES

There are certain costs that were incurred in the historic electric industry structure that cannot be recouped in a competitive market structure. As part of the change from a fully regulated electric industry to a more competitive industry structure, AB 1890 established a number of charges that are intended to make the transition more orderly and fair to all participants. Without these charges, significant financial damage could have impacted the ability of these utilities to provide reliable electric services to the state's electricity consumers. The four categories of costs that are generally identified as the relevant competition transition costs include:

- Costs of utility owned generation assets;
- Employee-related transition costs;
- Residential and small commercial trust transfer account costs; and
- Purchased power contracts.

Figure S-2



The competition transition charges are calculated as the difference between the frozen rates and the other four components of your electric bill. After the transition period, the competition transition charges are based on the utility's costs allowed for recovery by the CPUC. The following figure graphically displays the relative magnitude and duration of these various competition charges. Note that the other four components of your electric service bill are not shown on the graph.

The obligation to pay the competition transition charges is non-by-passable, except for a limited number of exceptions specified in AB 1890. Even customers buying generation from a competitive supplier will continue to pay these charges.

Stranded Cost

AB1890 allows utilities to recover their remaining investments in utility owned generation assets or "stranded cost" that are not expected to be competitive in the new industry structure. These uneconomic assets are primarily fossil and nuclear fueled generating resources.

If a utility owns resources that produce power at costs below the competitive market price, such as hydroelectric resources, these reductions offset the uneconomic costs of the utility's other resources.

The utility owned generation assets are to be fully recovered by March 31, 2002, or sooner. San Diego Gas and Electric fully recovered its generation assets in 1999.

Employee Related Transition Costs

To mitigate the potential impacts on utility personnel, AB 1890 allows utilities to recover certain employee related transition costs. Examples include costs for early retirement, retraining, and outplacement related expenses for employees no longer needed by the regulated electric utility. These costs may only be collected through December 31, 2006.

Trust Transfer Account

A key consumer provision of AB 1890 was the mandated 10% reduction to the 1996 rates for residential and small commercial customers. The 10% reduction was funded by the issuance of tax-exempt bonds that are being repaid over 10 years. The Trust Transfer Account payments are paying the principal and interest on those bonds. Trust Transfer Account costs are applicable only to those customers that are receiving the 10% rate reduction. These charges will continue to be collected until those bonds are fully retired in December 2008.

Purchased Power Contracts

In the 1980s and 1990s, utilities typically purchased significant amounts of electricity from third parties. AB 1890 recognizes the costs of such purchased power contracts as obligations that cannot be unilaterally ended. On an aggregate basis, these contracts are expected to have higher prices than those from the new competitive market. These uneconomic costs will be recovered over the remaining term of the individual contracts. This portion of the competition transition charges should be recovered by 2020, unless the contracts are renegotiated.

In summary, most of the changes to your electric services are in the generation, metering, and billing components of your bill. These changes are the first of an ongoing process that will result in your electric service costs increasingly being set by competitive forces rather than regulatory agencies.

C. MARKET PARTICIPANTS

There are a number of participants in the new electricity market, some you will deal directly, and others are behind-the-scenes players. This section will discuss these new players and their responsibilities.

1. DIRECT PLAYERS: PROVIDERS OF ELECTRIC SERVICE

Investor Owned Utilities

The three large investor owned utilities, Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric, provide service to about ten million customers in the state. These utilities are required to restructure and sell 50% of their non-nuclear thermal generating assets to conform to state mandates. These utilities have also entered the competitive market by establishing unregulated subsidiaries as alternative electricity providers.

There are also four smaller investor owned utilities operating in California; Sierra Pacific Power Company, PacifiCorp, Bear Valley Electric Services, and Mountain Utilities. These utilities have had varying degrees of participation in the restructuring process due to their small size.

Municipal Utilities

There are 27 electric municipal systems serving approximately three million customers in California. Municipal utilities are governed by an elected board of directors and regulated by local governments, not by the CPUC.

Under the restructuring legislation, municipals are not required to restructure their services. They can decide to open up their operating areas to competition. The municipals would then be allowed to sell their services outside of their areas and new providers could sell their services inside the municipal's territory. If they open to competition, they would be allowed to recover their "stranded costs" like the investor owned utilities.

Electric Cooperatives

There are five electric cooperative systems in California, each serving fewer than 10,000 customers. These co-ops are often located in more remote or rural areas, are member-owned, and are managed by an elected board of directors. Most co-ops own transmission and distribution facilities and buy power for their customers.

Irrigation Districts

California has eight irrigation districts that provide electricity to less than half a million customers. The districts offer irrigation services mostly to agricultural customers, but also provide domestic water and electricity services to businesses and citizens in their service areas. They also have the authority to sell retail power to any customer in California.

Irrigation districts have similar ownership and management structures as municipals and co-ops.

Competitive Suppliers

If you choose to buy electricity from someone other than your local utility provider, you will be dealing with a competitive supplier or energy service provider (ESP). These entities can be utility subsidiaries or independent entities. They can sell traditional power and/or renewable or "green" power. Since the profit margins on the commodity portion of their services are limited, many suppliers offer additional services such as energy efficiency and advanced metering.

Legislation passed in 1997, requires that energy service providers serving small commercial and residential customers be registered with the CPUC and provide a performance bond. The CPUC has also established a number of other protective measures for energy consumers. These measures prevent energy service providers from engaging in false advertising claims or fraudulent practices such as switching a customer without their consent.

Specifically, all energy service providers offering services to residential and small commercial customers must:

- have an executed and signed service agreement with each utility company in whose service territory the energy service provider is offering services;
- name their key personnel involved in the technical and operational aspects

of the business and provide a description of each key person's experience;

- post a \$25,000 security deposit or financial guarantee bond with the CPUC or open a customer trust account in the same amount;
- submit to potential customers a written notice describing its proposed services and terms; and
- submit a copy of all scheduling coordinator agreements.

Those suppliers that offer electric service only to agricultural, large commercial, and industrial customers do not need to register with the CPUC, but must comply with the rules for direct access.

A current listing of electric suppliers registered with the CPUC to offer services to residential and small commercial customers can be found at: <http://www.cpuc.ca.gov/published/ESP_Lists/esp_udc.htm>

Power Brokers

Many power brokers and eCommerce service companies can bring together wholesale energy suppliers and large commercial, industrial, and government energy consumers. These companies operate internet-based power exchanges or auctions for procuring commodities and services within the energy industry. Some organizations may prefer this option to the traditional RFP process that can often be long and involved.

Aggregators

Aggregators are defined as any marketer, broker, public agency, city, county, or special district that combines the electricity needs of multiple end use customers and purchases electricity and related services on behalf of the group.

The goal of aggregation is to attract enough members so their electric usage is sufficiently large with attractive usage patterns. This provides participants a better price than they could have received on their own and allows the costs of implementing the program to be shared. Aggregators will often use a portion of the savings to cover ongoing administration costs.

2. INDIRECT PLAYERS: PROVIDERS OF SUPPORT SERVICES

The restructuring of the electric industry has created an opportunity for a whole new set of participants in the energy services chain. Many of these new entities provide services that support the utilities, the new suppliers, and the overall structure of the electricity market. You may not deal directly with them, but they are critical players in delivering and maintaining your electric service.

Power Market Exchanges

The Power Exchange is a market place that facilitates trade of wholesale electricity and ancillary services. The California Power Exchange (PX) is a nonprofit, public benefit corporation established under AB 1890 and managed by an independent Board of Governors. As discussed earlier, the PX generally

sets the price for competitive electric supplies. The PX is charged with providing an efficient, competitive auction to meet the electricity needs of customers. Under AB1890, the investor owned utilities are required to buy all of their electricity from the PX during the transition period from 1998 until their stranded generation costs are collected but no later than 2002.

The California Power Exchange runs day-ahead and hour-ahead auctions that determine the market prices for electricity when supply is equal to demand for the given time period. Between April 1998 and December 1999, electricity prices in the California Power Exchange averaged less than 3 cents per kWh. In the first seven months in 2000, the electricity prices were more volatile and the average monthly prices ranged from 3 to 12 cents per kWh. The California Power Exchange sets a market-clearing price for approximately 80% to 90% of the generation on the grid.

Competing with the California Power Exchange is the privately held Automated Power Exchange. The Automated Power Exchange offers many of the same services as the California Power Exchange including a forum to match up buyers with sellers.

The Automated Power Exchange (APX) was the first to open a renewable energy market. Any generator registered with the California Energy Commission as a renewable supplier can sell renewable energy into the Automated Power Exchange's Green power Market. Renewable energy or green power is electricity generated from renewable

resources including: wind, solar, geothermal, biomass, landfill gas, and small hydropower (less than 30 megawatts). The price in the green market has been averaging 15-20 percent above the PX price for non-renewable power on a megawatt-hour basis. However, as previously discussed, a rebate program, administered by the California Energy Commission, may make green power less expensive.

Independent System Operator

The Independent System Operator was created to manage the transmission network to ensure reliability while promoting an open, competitive market. While the investor-owned utilities still own their transmission wires, the Independent System Operator manages the day-to-day transmission system operations. Key functions provided by the Independent System Operator include:

- coordinated scheduling of power over most of California's integrated transmission system so that it does not become overloaded; and
- management of real time energy supply services needed to operate the system within acceptable voltage and frequency tolerances and to maintain a continuous balance between energy supply and demand.

The Independent System Operator works with the various market participants to minimize the costs associated with these essential services. Though these changes have involved a large effort,

they should not have affected the services you receive.

The extent that these costs are passed on to you depends on your agreements with your supplier.

Scheduling Coordinators

Scheduling coordinators communicate directly with the Independent System Operator on behalf of electricity suppliers and generators to plan when and where electricity is needed. These coordinators are certified through the Independent System Operator. More information on the certification process and requirements can be found at <http://www.caiso.com/clientserv/certification/>.

Meter Readers

Meter data management agents are independent meter readers, existing utilities, or CPUC certified companies that read and manage the electric usage information recorded by your electric meter. Their responsibilities include managing meter reading schedules, reading and validating meter data, calculating usage, and storing the data on a computer server where energy service providers and others can access the information. You most likely will not need to choose a meter data management agent, as your supplier should have the necessary arrangements in place.

Meter Installers

Meter service providers are the companies that actually install direct access meters or “interval meters” that can read electric usage on an hourly

basis. Utilities and other companies approved by the CPUC can perform the functions of meter service providers that include installing, removing, repairing, and maintaining the direct access meters. In most cases, you should not need to choose a meter service provider because your supplier will have the necessary arrangements in place. When purchasing or leasing meters, make sure the units have the capability of being read by your utility, in the event that you return to them in the future.

D. TRENDS AND ISSUES IN THE NEW MARKET

1. GREEN POWER

Green power has emerged as a popular choice for those customers who have switched to a competitive supplier. Green power is electricity that is generated from renewable resources and is less polluting. These sources of electricity include:

- Biomass – using wood, agricultural wastes, and crops grown specifically for energy production to produce electricity.
- Geothermal – utilizing heat that lies below the surface of the earth to generate electricity. The supply of heat is continually replenished from the center of the earth, making it a renewable resource.
- Wind – using wind to generate electricity.
- Solar – electricity produced by sources that collect energy from the sun.

- Small hydroelectric – using falling water to turn a turbine and generate electricity from a facility that is not greater than 30 MW.
- Other – including waste tires, digester gas, landfill gas, and solid waste.

Many customers buy green power to support a cleaner environment and suppliers are responding to their demands by selling green power options. These options range from 100% renewable power to a mix of renewable and non-renewable power.

Power from renewable resources is often more expensive to produce than that made from traditional sources. Therefore, you should expect to pay a premium over traditional utility rates. Because it is more expensive, the California Energy Commission is supporting the development of the green power market by providing customers who purchase it a rebate. Additional information on the Energy Commission's rebate is found in Section

III-D and also on the web at www.energy.ca.gov/greenpower/index.html.

2. EVOLVING COMPETITION

Since restructuring started, competition in the electricity markets has been slow to evolve. Initially, there were close to 300 energy service providers, but that number dwindled as California registration requirements increased for energy service providers. Some energy service providers have now chosen to monitor the California market, while competing in the more profitable Northeastern U.S. markets.

The Table S-3 shows the customer switching trends for the first two years of restructuring. Some states have seen more movement among customers and suppliers than California. For example, Pennsylvania has seen 10 – 40 percent of their customers choose new suppliers. Because Pennsylvania customers were given a “credit”, competitive suppliers were able to offer prices that provided assured savings.

Table S 3

California customers switching to direct access as of July 15, 2000

Activities	Residential	Commercial <20 kW	Commercial 20 - 500 kW	Industrial > 500 kW	Agricultural	Total
Percent of Direct Access Customers	1.9%	4.1%	7.2%	15.9%	4.1%	2.2%
Percent of Direct Access Load (KWH)	2.3%	5.7%	24.1%	31.7%	7.9%	15.9%

Small commercial and residential customers are largely indifferent to the new open market, with 98 percent of all

customers staying with their current utility company. This slow evolution is mainly due to the lack of significant

savings, a lack of consumer education, and the fact that it is easier to stay with the current provider.

During the restructuring transition period that will end no later than March 31, 2002, customers are subject to a rate freeze while the investor owned utilities collect their stranded generation asset costs (as part of the competition transition charges). Once those costs are recovered, the rate freeze will end, and the amount of competition transition charges will be reduced. At that time, activity in California's competitive electric services market may increase and customers may see more significant volatility in generation or commodity charges. This could be accompanied with the offering of a number of related services such as energy efficiency products, advanced metering, and energy information products to support customer energy management options. Some suppliers will likely also offer a menu of non-energy services such as Internet access, home security, and telephone related services.

3. FUTURE ISSUES IMPACTING CUSTOMER RATES

Distribution Competition

Of all the current regulatory actions, the introduction of distribution competition could have the largest effect on California electric customers. The CPUC has been examining this topic and investigating how distributed generation can be deployed in the competitive energy structure. These will remain contentious issues for the investor owned utilities because it is the one service area where they currently face

only limited competitive threats and challenges.

Opening electric distribution to competition would alter the market structure dramatically. It is unlikely that widespread construction of new competitive distribution facilities will occur. However, it is likely that there would be significant changes to the existing structure, including the creation of mini-utilities.

Theoretically, competition in the distribution sector could bring lower prices and services better tailored to different customer needs. However, the economic and political implications of distribution restructuring are large and the regulatory process addressing these issues will likely be prolonged.

Post Rate Freeze Ratemaking

The CPUC is currently examining utility rates and ratemaking mechanisms that will be applicable after the rate freezes end. The results of these proceeding will directly impact customers by defining how electric rates will be structured, including the establishment of performance incentives to keep rates as low as practicable.

Maturing Markets

Uncertainty and confusion accompany change from a highly regulated industry to one dominated by competitive forces. This is to be expected as many entrepreneurs try to establish their place in the new structure while traditional providers try to protect their historic business opportunities. Legislators and regulators are also watching closely and

modifying the rules, as appropriate, to promote the continued development of efficient competitive markets.

Customer exposure to price volatility is a fact we now have to accept. Though competitive providers will develop increased confidence in the general trends and behaviors of the markets, weather is a key driver in the demand for electricity and it remains unpredictable on a long-term basis. Though proposed developments of new high-efficiency electric generation facilities will create downward pressure on prices during much of the time, investors will need to recover their investments. They can take advantage of opportunities to extract higher prices when demands are high and/or supplies not as abundant. This will create a key opportunity for consumers to demonstrate price sensitivity by managing their consumption.

Though price volatility will be the norm, the passage of time should lead to an increasing level of stability in the new market structure. Customers should expect a continuous level of creativity in service offerings as competitive firms try to improve their market position and market share. Being proactive in pushing new ideas and maintaining an appropriate degree of flexibility will allow you to take advantage of new innovations as they occur.

One of the more interesting areas of development is expected to be in the area of metering. New technology in collecting data and using it on a real-time basis to make energy use decisions will continue to emerge. This “communications” related service may

be bundled with other services by innovative providers. “Smart” houses of the future will surely include this technology allowing consumers to optimize their energy usage based on their personal preferences, priorities, and willingness to pay.

SUPPLEMENT 2 – FREQUENTLY ASKED QUESTIONS

The restructuring of the electric industry is not an easy topic to follow. The complexities and ongoing changes in the market have created a number of misconceptions and half-truths. The following questions and answers are designed to clarify some of the more common misconceptions.

Can I get a better price for electricity than my current provider offers?

There are no guarantees that you will be able to get lower prices by switching to a competitive energy supplier. The best way to ensure you are not paying more for energy services is to proactively manage your energy usage in addition to evaluating your supply options.

The factors that a competitive supplier will consider in making an offer include your load factor, the size of your load, your ability to respond to price signals, and your willingness to take market price volatility risks. Additionally, the ability of new suppliers to compete during the transition to a fully competitive market is impacted by the rate freeze, the 10 percent discount for residential and small commercial customers, and the competition transition costs.

After the rate freeze ends, you will be subject to the full volatility of a competitive market even if you stay with your current provider. This allows competitive suppliers to offer supply alternatives that can mitigate some of this market risk. Default service rates are based on rate class averages. If your

load profile and usage patterns are different from your rate class averages, you may be able to obtain better prices from competitive suppliers.

Am I required to choose an energy supplier because of industry restructuring?

There is nothing in the restructuring legislation that requires you to switch energy service suppliers. It is strictly voluntary on the part of each individual consumer.

Will our electricity be as reliable if we buy it from someone other than our traditional local utility?

Yes, most electrical outages that occur are a result of failures in the local distribution system. The California Public Utility Commission (CPUC) continues to regulate the distribution system and the utility distribution companies who own and operate the wires. Thus, the distribution system reliability should not be adversely impacted. In fact, it may be improved because the cause of outages will be more readily assigned to the various providers. Reliability may also be improved because of the emerging presence of successful competitive alternative distribution service providers in some areas.

When you purchase electricity from a competitive supplier, they provide only the electric commodity, or power portion, of your electric service. This power is delivered through the same power lines as before restructuring. The

key difference is that the transmission system throughout the state is mostly operated as one integrated system by a single entity, the California Independent System Operator (ISO). The ISO ensures that power is delivered to the end use customer despite any failure on the part of the commodity supplier to correctly forecast or schedule the power they need to serve their customers. Any supplier who does not purchase the power necessary to serve its customers will have to replace it at market cost at the time it is used.

The reliability of your power supply under the restructured market should stay the same or may even improve under the new system due to a higher degree of correlation between performance and payment. The California Energy Commission is forecasting reduced amount of available power supplies for the next few years. This is due to California's recent robust economic development. There are several thousand megawatts of new capacity that have been proposed for development in California to meet this growing demand and compete in the new marketplace. In order for these new facility owners to pay for their investments, they will have to operate reliably and deliver the scheduled amounts of power to their customers.

Under restructuring will we achieve significant savings whether we stay with our utility supplier or switch providers?

Exact savings levels are difficult to forecast; however, the market has shown savings can be achieved, although not as dramatic as had been previously

predicted. As the utilities complete their companies collection of the "stranded costs", you could see reductions in your energy bill whether you change providers or not. For details on these costs, see Supplement I-B: Components of Electric Service.

Many public agencies that switched to competitive suppliers after the market restructured are realizing energy cost savings from one to five percent on their utility bills. These savings depend on several factors including the number of accounts, their energy usage levels and consumption patterns, and whether the supplier believes strategic or market presence value will be created. On the other hand, some agencies that considered buying electricity from competitive suppliers found that the small savings did not warrant the efforts to switch. Administrative costs, contracting efforts, and ongoing program maintenance could negate any cost savings.

A public agency should not set its utility budget expecting significant savings off its energy bills as a result of switching to a competitive provider, unless the supplier is willing to guarantee the savings. However, there is the opportunity to achieve significantly higher savings through a total energy program that also includes energy efficiency.

Are there any guaranteed electricity savings?

Depending on your electric usage patterns, there may be vendors willing to offer guaranteed savings off your total bill. Of course, a competitive offer and

any guarantees need to be carefully analyzed to fully understand the overall level of savings and whether it is your best option.

If I purchase power from someone else, will I have to continue dealing with my current utility company?

Even if you choose to purchase power from a competitive supplier, you will still receive some services from the local utility. In most cases, the local utility is still responsible for providing the infrastructure that delivers the power and for collecting various charges such as the public purpose program charges. If your power goes out or you have a problem with reliability, you should call your local utility distribution company, just as you have always done.

Additionally, a public agency that changes suppliers may still receive a bill from the local utility for either all electric services received including the electric commodity (a consolidated bill), or a bill for only the specific services still provided by the utility.

Can new energy providers be trusted?

There is a lot of uncertainty in any new market, and few of the new competitive suppliers are household names with long track records. However, since the market opened in March 1998, there have been a number of new providers, both independent and utility affiliated, who have proven their commitment to the market by their financial and infrastructure investments.

Before signing any contracts, however, you should verify that a potential

provider is legitimate by conducting the appropriate reference and background checks. Public agencies can also protect themselves by requiring performance bonds or other forms of guarantees against contract breach or vendor failure.

Is procuring an energy contract with a new supplier like any other procurement process?

Many public agencies that have gone through an energy procurement process and have signed a contract, say that the process is different.

Choosing a competitive electricity supplier requires consideration of more than the price of the end-use commodity/product. Complexities of unbundling the restructured market, changing timeframes and regulations, and new risks makes the evaluation of competitive offers difficult. Many agencies have found the need for outside assistance to evaluate the different offerings.

In addition, price offers often are only valid for a short duration, typically one to five days. Public agencies may find it difficult to respond, with board approval, to these price proposals. This could be averted if the public agency can delegate the decision making to a sole individual or if pre-approval to sign a contract can be obtained for a certain price level.

Is green or renewable power more expensive?

The total cost of producing green power is typically greater than the cost of other sources of power. This is a result of the higher capital cost of green generating

resources compared to the cost of natural gas or other fossil fuel supplies. However, there are environmental benefits resulting from purchasing green power. Power plant emissions are a recognized contributor to acid rain in many parts of the US and they also contribute to global climate change.

The California Energy Commission is supporting the renewable market by offering a rebate from a fund created by AB 1890 to customers who buy green power. About \$75 million has been put aside for this purpose until 2002. Pending legislation (AB 995) may extend the collection of these funds and the program to January 1, 2012. This legislation, may also prohibit public agencies from being eligible to receive renewable consumer credits after January 1, 2002. After this date, cities, counties and other public agencies purchasing green power may no longer be eligible to receive this credit.

As a result of this rebate, some customers have purchased green power and reduced their total electricity cost. The existence of this fund and other market conditions will ultimately determine the long-term prices for green power in California's competitive market.

If customers in my city switch energy providers, will we lose our franchise fees and utility user tax revenues?

The CPUC has directed that all customers continue to be responsible for all applicable fees, surcharges, and taxes authorized by law. In fact, existing law (SB 278, Beverly, Chapter 233, Statutes of 1993) already requires the addition of

a surcharge equal to the energy component of a franchise fee if a customer buys the electricity and natural gas from a third party. Also, utilities are required to provide cities with information on customers purchasing power from third parties so that the cities can enforce their utility user's taxes. To account for those customers choosing a supplier other than the existing utility, the local utility will bill the supplier for all applicable franchise fees (i.e. the surcharge authorized under SB 278 and remit the revenue to the city).

The competitive supplier and the utility will each be responsible for calculating any other fees, taxes, and surcharges for their respective services. Customers will be responsible for paying these charges and the money will be distributed appropriately to local agencies and other recipients.

One factor that could impact the amount of revenue collected through a utility users' tax and franchise fees is a reduction in electricity prices. Absent an increase in the tax rate, revenues from utility users' taxes will decline as regulatory and market forces cause a reduction in electricity prices. On the other hand, if lower prices stimulate economic activity, as is predicted and result in more electricity use, then general revenues could increase.

Will we have to replace all our meters if we switch energy providers?

Only large meters classified as "over 50 kW" are required to be replaced when participating in direct access. These larger meters are defined as those that measure more than 50 kW of maximum

demand in four of the previous twelve months or over 80 kW in any one month. Many of the larger public agencies have found that 5 to 10 percent of all their meters exceed the 50 kW criteria. Smaller agencies will likely have fewer meters requiring replacement. Some large meters may not need to be replaced because they already measure kW demand or others may be exempt because they are in a rate class that is exempt from the requirement.

New meters typically cost from \$400 to \$1,500. The costs of new meters and meter reading are additional costs that need to be factored into any decision to switch suppliers. Refer to Section III, C-1 for information regarding meter-reading capabilities of energy service providers and utilities.

The CPUC plans to revisit the criteria for installing new meters in 2001.

Need more information?

To find out more on restructuring visit the California Energy Commission website at:

<http://www.energy.ca.gov/restructuring/index.html>

or the CPUC website at:

<http://www.cpuc.ca.gov>

Additional information on other resources is found in Appendix A.

APPENDIX A -- INFORMATION SOURCES

CALIFORNIA ENERGY COMMISSION

California Energy Commission 1516 Ninth Street Sacramento, CA 95814			
Topic	Information Available	Web Address	Telephone #
Main Website		http://www.energy.ca.gov/index.html	
Electricity/Gas Information	Price Forecast	http://www.energy.ca.gov/energyoutlook/index.html	(916) 654-4791
	Restructuring	http://www.energy.ca.gov/restructuring/index.html	(916) 654-4791
Renewable Energy	General Information	http://www.energy.ca.gov/renewables/index.html	(800) 555-7794
	Customer Credit Program	http://www.energy.ca.gov/greenpower/index.html	(916) 654-4735
	Renewable Equipment Rebate	http://www.energy.ca.gov/greengrid/index.html	(916) 653-2834
	List of Renewable Energy Providers	http://www.energy.ca.gov/greenpower/providers.html	(916) 653-5851
Energy Efficiency	General Information	http://www.energy.ca.gov/efficiency/index.html	(916) 654-5013
	Public Agency Programs	http://www.energy.ca.gov/commission/programs/index.html	(916) 654-4089
Energy Cooperatives	General Information	http://www.energy-co-op.net	(916) 654-4815
Energy Management Handbooks	See page 27 for listing.	http://www.energy.ca.gov/reports/efficiency_handbooks/index.html	(916) 654-4008

WEBSITES

1. CPUC

<http://www.cpuc.ca.gov> (*Main Site*)

http://www.cpuc.ca.gov/published/ESP_lists/esp_udc.htm (*Listing of Registered Energy service providers*)

2. UTILITIES

<http://www.pge.com> (*Pacific Gas and Electric Company*)

<http://www.edisonx.com> (*Southern California Edison Company*)

<http://www.sdge.com> (*San Diego Gas and Electric Company*)

<http://www.socalgas.com> (*Southern California Gas Company*)

<http://www.sierrapacific.com> (*Sierra Pacific Resources*)

<http://www.pacificorp.com> (*Pacific Corp*)

<http://www.bves.com> (*Bear Valley Electric*)

3. ASSOCIATIONS

<http://www.ucan.org> (*The Utility Consumers' Action Network*)

<http://www.turn.org> (*The Utility Reform Network*)

<http://www.cacities.org> (*League of California Cities*)

<http://www.cmua.org> (*California Municipal Utilities Association*)

<http://www.meug.com/deregulation/deregulation.htm> (*web-based information site*)

<http://www.csac.counties.org> (*California State Association of Counties*)

<http://www.ncpa.com> (*Northern California Power Agency*)

<http://www.appa.org/energy/pubs.html> (*The Assoc. of Higher Education Facilities Officers*)

4. PUBLIC AGENCY PROGRAMS

<http://www.spurr-remac.org> (*School Project for Utility Rate Reduction / Regional Energy Management Coalition, gas purchasing*)

<http://www.acwanet.com/index1.html> (*Association of California Water Agencies, electric*)

<http://www.abag.ca.gov/services/power/epool.html> (*Association of Bay Area Governments, electric site*)

<http://www.abag.ca.gov/services/power/gas.html> (*Association of Bay Area Governments, gas site*)

http://www.sandag.cog.ca.us/projects/regional_planning/electric_restructuring.html. (*San Diego Association of Governments*)

<http://www.resd.dgs.ca.gov/Energy/electric.asp?mp=electric.asp> (*Department of General Services, electric site*)

<http://www.resd.dgs.ca.gov/Energy/naturalgas.asp?mp=gas.asp> (*Department of General Services, gas site*)

PERTINENT CPUC DECISIONS

- D.97-10-08 Opinion Regarding the Load Profiling Workshop Report and Its Supplements
- D.97-10-087 Opinion Regarding the Direct Access Implementation Plans and Related Tariffs
- D.97-12-048 Opinion Regarding the Meter and Data Communications
- D.97-12-088 Opinion Adopting Standards of Conduct Governing Relationships Between Utilities and Their Affiliates
- D.98-03-072 Opinion Regarding Consumer Protection
- D.98-07-032 Opinion Resolving Outstanding Matters in Revenue Cycle Services
- D.98-09-070 Opinion on Revenue Cycle Unbundling
- D.99-05-051 SDGandE Ends its Rate Freeze

PERTINENT LEGISLATION

Electric

- **SB 278, Beverly, Chapter 233**, enacted in 1993; protects local governments from the loss of franchise fees and user's taxes
- **AB 1890, Brulte, Chapter 854**, enacted in September 1996; restructures the electric industry in California.
- **SB 477, Peace, Chapter 275**, enacted in August 1997; defines energy service provider registration requirements.
- **SB 90, Sher, Chapter 905**, enacted in October 1997; provides guidelines for the renewable program under AB 1890 and authorizes the California Energy Commission to administer the funds collected for renewable energy technology support.
- **SB 1305, Sher, Chapter 796**, enacted in October 1997; requires retail suppliers of electricity to disclose the sources of generation to customers and report fuel type and consumption information, emissions, purchased power, losses, and retail sales information.
- **AB 995** (pending), extends programs funded with public good charges.

Gas

- **AB 1421, Wright, Chapter 909**, enacted in October 1999; restricts provision of core gas meter reading services to gas utilities.
- **SB 278, Beverly, Chapter 233**, enacted in 1993; protects local governments from the loss of franchise fees and user's taxes

APPENDIX B -- GLOSSARY OF TERMS

AB 1890: Assembly Bill 1890, signed into law on September 23, 1996, as Chapter 854 of the Statutes of 1996. AB 1890 provides the legislative guidance for restructuring of the electric industry in California.

Ancillary Services: Services supplemental to normal commodity services which the Independent System Operator ensures are available and which are necessary to support the delivery of energy from the generation sources to the loads while maintaining reliable operations of the transmission grid. The services consist of:

- Regulation - A mechanism to keep generation within certain levels,
- Spinning reserve - See below,
- Non spinning reserve - See below,
- Replacement reserve - The ability to replace used spinning reserve,
- Voltage support – A service required by generating units to maintain required grid voltage criteria.
- Black start - The ability to supply power from a generator that does not require using electricity from the system to start.

Aggregator: Any marketer, broker, public agency, city, county, or special district, that combines the loads of multiple end-use customers in facilitating the sale and purchase of electric energy, transmission, and other services on behalf of these customers.

California Energy Commission (CEC or Energy Commission): An administrative agency with primary energy policy and planning agency charged with ensuring a reliable and affordable energy supply. Created by the Legislature in 1974, and located in Sacramento, the CEC's five major responsibilities are: 1) forecasting future energy needs and keeping historical energy data; 2) siting and licensing power plants; 3) promoting energy efficiency through appliance and building standards; 4) developing energy technologies and supporting renewable energy; and 5) planning for and directing state response to energy emergencies.

California Public Utilities Commission (CPUC): An administrative agency established to regulate privately owned utilities and to secure adequate service to the public at rates which are just and reasonable both to customers and shareholders of the utilities.

Competition Transition Charge (CTC): A non-by-passable charge to customers of investor owned utilities to recover generation investments and other commitments made prior to restructuring plus certain utility costs associated with transitioning to the new structure. The majority of the CTC will end no later than March 31, 2002. These will end, as the investor owned utilities finish collecting stranded costs. San Diego Gas and Electric has declared its stranded costs collected and has ended the majority of its CTC as of July 1, 1999.

- Demand:** The amount of electricity delivered to an end user at a given point in time. Electric demand is expressed in kilowatts and is also sometimes referred to as load.
- Direct Access (DA):** The ability of customers to purchase electricity directly from the wholesale market rather than through a traditional local utility.
- Direct Access Service Request (DASR):** A service request form submitted to the local utility distribution company requesting participation in Direct Access.
- Energy Service Provider (ESP):** An entity which provides electric service to a retail or end-use customer, but which does not fall within the definition of an electrical corporation under Public Utilities Code Section 218. This Section defines electrical corporation as one that: “includes every corporation or person owning, controlling, operating, or managing any electric plant for compensation within this state, except where electricity is generated on or distributed by the producer through private property solely for its own use or the use of its tenants and not for sale or transmission to others.”
- Independent System Operator (ISO):** A state chartered, nonprofit market institution created by AB 1890 that is responsible for centralized control of the statewide transmission grid in order to ensure reliable operation of the transmission system in an efficient and nondiscriminatory manner. The ISO is responsible for the scheduling of deliveries between suppliers and consumers over the high voltage transmission network.
- Investor Owned Utility:** There are seven investor owned utilities who are required to restructure as a result of AB 1890. The three largest ones, Pacific Gas and Electric Company, Southern California Edison, and San Diego Gas and Electric provide service to 10 million customers in the state.
- Kilowatt (kW):** Often referred to as electric demand, kW is the amount of energy drawn by a customer at a specific time.
- Kilowatt-hour (kWh):** The most commonly used unit to measure electricity consumed over time. It means one kilowatt of electricity supplied for one continuous hour. One kilowatt-hour equals one thousand watt-hours. One megawatt-hour equal a million watt-hours or one thousand kilowatt-hours.
- Load Factor:** A ratio that reflects the variability in electric demand over a given time period. Load Factor is expressed in percentages and is a ratio of a customer's actual energy consumption (kWh) during a given time period to the consumption that would have occurred had consumption been fully sustained at the customer's maximum demand (kW) level during the same time period. This is also equal to the ratio of the average demand to the maximum demand. Higher load factors represent a more even distribution of load over the time period measured.
- Load:** The amount of electricity being used at a specific time. Load is often referred to as demand.
- Load Profiling:** The process of graphing a customer's electric demand or load over a period of time, typically one day, one season or one year.
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- Marketer:** Any entity that buys electric energy, transmission, and other services from traditional utilities and other suppliers, and then resells those services.
- Non-spinning reserve:** Reserve capacity made available from generating units that are off-line but which can come on-line within 10 minutes. This is one of the components of ancillary services managed by the Independent System Operator.
- Power Exchange (PX):** A state chartered, nonprofit market institution created by AB 1890 that is charged with providing an efficient, competitive auction to meet the electricity loads of customers that is open on a nondiscriminatory basis to all electricity providers. The PX runs auctions that determine the hourly market prices for electricity at which supply is equal to demand.
- Public Goods Charge (PGC):** A non-by-passable surcharge imposed on all retail electric customers in a local distribution utility's territory to fund various activities such as public goods research, development and demonstration, energy efficiency activities, promotion of renewable resources, and support of low income assistance programs.
- Qualifying Facility (QF):** A small-power producer or co-generator that meets certain guidelines and thereby qualifies for exemption from certain federal and state regulations and is authorized to sell electric power to retail electric distribution utilities which must purchase this power at avoided cost prices. QFs were created by the Public Utility Regulatory Policies Act (PURPA) of 1978.
- Rate Reduction Bonds (RRB):** Bonds (and certain other forms of indebtedness) authorized by AB 1890 to finance the 10% rate reductions received by the residential and small commercial customers in California. Repayment of the bonds is from a non-by-passable charge to customers that receive the 10% rate reduction.
- Real Time Pricing:** Pricing for utility service that varies over very short time periods, typically an hour. Real time pricing can be advantageous for large energy consumers who can change usage patterns in response to current energy prices.
- Scheduling Coordinator (SC):** An entity certified to act as a liaison with the Independent System Operator on behalf of generators, supply aggregators (wholesale marketers), retailers, and customers to schedule the delivery of electricity over the transmission system.
- Spinning Reserve:** The percentage of an online generating unit's electric generating capacity which is immediately available to meet changes in demand and is available for a minimum of two hours. This is one of the components of ancillary services managed by the Independent System Operator.
- Utility Distribution Company (UDC):** The entity that provides facilities and services for the delivery of electricity to customers over low voltage distribution facilities. This entity may also be referred to as a Local Distribution Company or simply the local utility. For most of California's energy consumers, the Utility Distribution Company is also an Investor Owned Utility.
- Virtual Direct Access:** A rate option that allows customers to purchase electric power from the local utility at the applicable Power Exchange hourly price. This service requires customers to have hourly interval metering capabilities. This rate class must be requested by the customer and is also known as the hourly PX rate option.

APPENDIX C -- AGGREGATION PROGRAMS SUMMARY

Program Name	Billing and Metering	Green Option	Services Offered	Who Can Join	Costs to Join	Contact Information
Association of Bay Area Governments (ABAG) - Electric	ABAG consolidated billing Individually responsible for metering costs	Yes	Commodity Transmission Load Mgmt. Billing	ABAG members, cooperating Bay Area members and special districts and local governments in PG&E's Northern CA territory	Individual metering costs	Phone - (510) 464-7900 Website - www.abag.ca.gov/services/power/
Association of Bay Area Governments (ABAG) – Gas	ABAG consolidated billing	NA	Commodity Billing	Core and noncore accounts of local governments and special agencies in PG&E's territory	1.3 cents per therm in recent past Varies by year	Phone (510) 464-7900 Website - www.abag.ca.gov/services/power/gas.html
Association of California Water Agencies (ACWA-USA) – Electric	ESP consolidated billing Individually responsible for metering costs	No	Commodity	Regular and affiliate members of ACWA, members may sponsor non-members in their constituencies	ACWA membership plus participation fee	Phone - (916) 441-4545 Website - www.acwanet.com
Association of California Water Agencies (ACWA-USA) – Gas	Commodity and transportation services billed separately	NA	Commodity	Regular and affiliate members of ACWA	ACWA membership	Phone - (916) 441-4545 Website - www.acwanet.com
Community College League of CA – Electric	ESP consolidated billing UDC metering	No	Commodity	Community Colleges	None	Phone – (916)-444-8641
Department of General Services (DGS) – Electric No customers are currently served under this program.	ESP consolidated No metering yet but testing NV-90 unit	Yes	Commodity Pricing updates Load analysis Economic analysis.	Any public sector entity within CA	None	Phone - (916) 322-8808 Website – http://www.resd.dgs.ca.gov/Energy/electric.asp?mp=electric.asp
Department of General Services (DGS) – Gas	UDC consolidated billing	NA	Commodity Transportation Scheduling Risk mgmt. Supply analysis Monitor prices	Noncore public sector customers in CA	0.65 cents per therm	Phone - (916) 324-1283 Website – http://www.resd.dgs.ca.gov/Energy/naturalgas.asp?mp=gas.asp

San Diego Association of Governments (SANDAG) – Electric	UDC consolidated billing \$22/mo to lease meter where required	Yes	Commodity Meter data	San Diego County government agencies	Metering costs	Phone - (619) 595-5346 Website - http://www.sandag.org.ca.us/projects/regional_planning/electric_restructuring.html .
Program Name	Billing and Metering	Green Option	Services Offered	Who Can Join	Costs to Join	Contact Information
School Project for Utility Rate Reductions (SPURR)/Regional Energy Management Coalition (REMAC) – Gas	Members receive one bill for all gas services.	NA	Commodity Considering expanding to alternative fuel (such as oil and diesel gas) and electric service	Noncore and core public schools (K - colleges), education offices, state and federal facilities, cities, counties, and special districts operate under a separate JPA known as the California Utility Buyers.	Core: 1.35 cents/therm Noncore: 0.675 cents/therm This varies by year and includes other services as well.	SPURR Phone - (925) 743-1292 REMAC Phone – (562) 922-6144

APPENDIX D -- SAMPLE CUSTOMER DATA LIST

Account Number	Identification code used to identify the customer account.
Meter Number	Identification code used to identify the meter.
Premise	Identification of specific location of meter.
Customer Address	Physical location of customer
Mailing Address	Location for which bills are mailed to (may be different than customer address)
Bill Period	Period of billing.
\$/kWh	Price charged for the consumption of energy
\$/kW	Price charged for demand levels
Description	The short title and description of the two to four digit SIC code.
City	The City associated with the customer's meter. This field identifies the premise location and not the mailing address, which could be a different city.
Rate class	The rate class that is associated with the particular meter.
Date read	Meter read date.
Interval	Reported number of days between meter reads.
KWH	Reported total kilowatt-hours for the designated period (on-peak, mid-peak, and off-peak breakdown may be provided in some cases).
Max kW	The maximum demand as reported for that particular period. This is not necessarily provided for all rate classes.
Billing Amount	The dollar amount the utility charged the customer for that individual meter over the billing period.
Voltage Phase	The voltage phase used to calculate a specific charge that is dependent on the voltage level for which the customer is being served. This is not applicable to all rate classes.
Connected Load	Expressed in horsepower (HP), Connected Load is used to calculate a charge dependent on how much load would ever potentially have to be prepared to supply the customer. This is not applicable to all rate classes.
Billing HP	Expressed in HP, Billing Horsepower is used to calculate specific charges. This is not applicable to all rate classes.
Contract Demand	Expressed in kW, Contract Demand amount is applied to low load factor customers who use power only certain months of the year. This is not applicable to all rate classes.

Excess Transformation Capacity	Expressed in kilovolt-amperes (kVA), Excess Transformation Capacity is used to calculate a charge levied for any extra costs it incurs to serve a customer who needs new or additional services due to new construction. This is not applicable to all rate classes.
Power Factor	A measure of the amount of power usage associated with real power. A charge is made for some customers who have a high reactive power demand.
Firm Service Level	Expressed in kW, the level of firm service an interruptible rate customer agrees to operate at during a power interruption. This is not applicable to all rate classes.

APPENDIX E -- SAMPLE DATA REQUEST

Customer Information Service Request

Please Print or Type

I, _____, _____
EDISON CUSTOMER OF RECORD CONTACT TITLE (IF APPLICABLE)

of _____ in the city of _____
ADDRESS

and the county of _____, in the State of California, do hereby appoint
_____ of _____
NAME OF ENERGY SERVICE PROVIDER/THIRD PARTY ADDRESS

CITY STATE ZIP

CONTACT NAME TELEPHONE NUMBER

to act as consultant and perform the following specific acts and functions:

- Request and receive billing records and history of my account(s) as specified below, basic existing meter information, services furnished by Southern California Edison (Edison"); and
- Request and receive copies of specific correspondence in connection with my account(s).

CUSTOMER ACCOUNT NUMBER	SERVICE ACCOUNT NUMBER	SERVICE ADDRESS
CUSTOMER ACCOUNT NUMBER	SERVICE ACCOUNT NUMBER	SERVICE ADDRESS
CUSTOMER ACCOUNT NUMBER	SERVICE ACCOUNT NUMBER	SERVICE ADDRESS

(FOR MORE THAN THREE ACCOUNTS, PLEASE PROVIDE THE INFORMATION ON AN ATTACHED SHEET)

Information Requested:

- Standard confidential customer information and basic existing meter data ☐ 12 months ☐ 24 months ☐ 36 Months
- Standard Interval Load Data (if used for billing & if applicable) ☐ 12 months ☐ 18 months
- Request information to be returned via: ☐ Hard Copy (if applicable) ☐ Diskette ☐ E-Mail Address _____

I authorize Edison to release requested information on my account or facilities to the above agent and consultant who is who is acting on my behalf regarding the matters listed above. I will advise my agent and consultant to treat this information as proprietary and confidential and not release it to others in any manner. I release, hold harmless, and indemnify Edison from any liability, claims, demand, cause of action, damages, or expenses resulting from unauthorized use of this information by my agent and consultant. I further certify that my agent and/or consultant has authority to act on my behalf and request the release of information for the accounts listed on this form. I understand that I may cancel this authorization at any time by submitting a request in writing.

I authorize the release of my account information:

- ☐ One-time only (immediate release)
- ☐ One year authorization - Information requested above will be released upon request at any time within the next 12 months.* Note: Any information requests differing from this written authorization must be submitted in writing.

* Edison will provide customer information without charge, up to two times within a 12 month period per service account. After two requests in a year I understand I am responsible for charges that may be incurred to process this request

_____ AUTHORIZED SIGNATURE OF CUSTOMER OF RECORD	<u>Mail this form to:</u> Southern California Edison Company Customer Billing Center Attn: 3 rd Party Authorization Desk P.O. Box 57017 Irvine, CA 92619-7017
_____ TELEPHONE NUMBER	
Executed this ____ day of _____, _____ MONTH YEAR	

APPENDIX F -- SAMPLE REQUEST FOR PROPOSALS



November 9, 1998

**REQUEST FOR QUALIFICATIONS AND PROPOSALS
FOR
COMPETITIVE ENERGY SERVICES**

EXECUTIVE SUMMARY

The City of Santa Monica (City) is inviting energy service providers (ESPs), interested utilities and municipal districts to join the City in bringing long term and sustainable economic, environmental and energy efficiency benefits to its various constituents. This Request for Qualifications and Proposals (RFQ/RFP) begins a process that is expected to culminate in March of 1999 when the City becomes the first municipality in the United States to satisfy all of its electricity needs from renewable sources to the advantage its citizens, today and in the future. This RFQ/RFP and the direct benefits the City expects to receive from its execution will play a major role in support of the Santa Monica Sustainable City Program, an effort developed in September of 1994 with the goals of reducing resource consumption, reducing waste generation and pollution, reducing the use of hazardous materials and safeguarding the local environment and public health.

Key Information	
11/20/98	Proposers submit Intent to Respond
12/1/98	Pre-Proposal Conference
Ken Edwards Center 1527 4 th Street Santa Monica, CA 90401	
12/15/98	Responses due
1/15/99	Notification of proposer short list

The City offers this opportunity to Proposers to share in its vision of a more sustainable energy future for the City and its constituents. The success of this program will be seen by other cities in California and across the United States as a pivotal event in the evolution of the green power market. The provider that delivers certified green energy to Santa Monica will have an excellent opportunity to build on the success of this effort with other like-minded cities. It is the City's

intention to partner with a provider that understands the importance of renewable resources and the role it plays in the protection and preservation of the environment.

In its entirety, the City-owned facilities and all the accounts of the City's other constituents represent over 797,000 MWh of load and incur energy expenditures of \$82 million dollars annually. This RFQ/RFP is seeking proposals or qualifications to serve the residential, commercial, industrial and public agency constituents of the City with either renewable or a mix of renewable and non-renewable resources to meet their electricity needs. An outreach program is being conducted to determine the level of interest of the City's non-municipal constituents in joining the program. The inclusion of these groups would greatly increase the size and scope of customers available to the selected service provider.

This RFQ/RFP is also seeking firm bids for all City owned facilities which constitute approximately 500 accounts with annual billings of over two million dollars and an approximate peak demand of five MW. The City is seeking proposals that contain full ESP services and is also interested in investigating options that may transition some of the services initially provided by the selected service provider to the City itself. The selection of a supplier and City Council approval is planned for January 26, 1999. When making its selection, the City will consider, among other things, a proposal's generation source(s), the competitiveness of the proposal's pricing structure and the overall ability of the proposal to meet the needs of the City and its constituents.

A. INTRODUCTION AND OBJECTIVES

The City of Santa Monica is seeking qualifications and proposals from energy services providers, interested utilities and municipal districts to assist the City in its efforts to protect the environment through the consumption of renewable electricity supplies. The City officially embraced the purchase of power from renewable resources for City-owned facilities and is taking a leadership role in support of its Sustainable City Program; a key program developed to comprehensively address environmental, economic, and social concerns within the City. The overall objective of this solicitation is for the City to realize benefits resulting from the restructuring of the electric industry while supporting emissions reductions and renewable generation sources in the State of California.

The City will only switch electricity providers if can realize the long term and sustainable economic and environmental benefits it is seeking. The City's initial directive includes the administration of the solicitation process for Request for Qualifications and Proposals and negotiations on behalf of its own loads. While the City is only seeking specific price proposals for its loads at this time, it is considering expanding the program and providing similar options to its constituents (residents, businesses, and other public agencies). The City is currently conducting an outreach program to determine if there is a similar momentum for its constituents to switch to more environmentally friendly electricity. The City looks forward to bringing additional customers to the service provider that best demonstrates a commitment to the future of the City of Santa Monica.

The qualification process resulting from this solicitation will not only be key in selecting a vendor to serve the City's loads, but will also be used in selecting qualified vendors to serve any additional loads if the program is expanded. The City does not intend to conduct another formal qualification process if expansion of the program is desired. Specific price proposals to serve its residential, commercial, industrial and public agency constituents with either renewable or a mix of renewable and non-renewable sources are strictly optional.

The City of Santa Monica is a municipality with approximately 90,000 residents located in the greater Los Angeles metropolitan area. The City started the Santa Monica Sustainable City Program in September of 1994 with goals of reducing resource consumption, reducing waste generation and pollution, reducing the use of hazardous materials, and safeguarding the local environment and public health. As a result of this environmental and social effort, the Santa Monica City Council voted on October 13, 1998 to purchase power from renewable resources² for all City facilities and prepare this RFQ/RFP for that end. After the City obtains results from its outreach program, it will determine whether or not to expand similar options to its constituents. Potential additional participants cover the following categories: public agencies,

² Generation from renewable resources is defined here pursuant to California Public Utility Code 383.5 (a) as meaning biomass, solar thermal, photovoltaic wind, geothermal, small hydropower of 30 megawatts or less, waste tire, digester gas, landfill gas and municipal solid waste generation technologies.

residential, commercial and industrial electric customers. All of the City's loads and the potential additional participants reside in the retail service area of Southern California Edison.

B. INVITATION

In its entirety, the City-owned facilities and all accounts of the City's other constituents represent over 797,000 MWh of load and incur energy expenditures of \$82 million dollars annually. The residential sector represents 25% of the load and the commercial, industrial and municipal sector constitutes the other 75% of the load. A sector by sector breakdown is as follows:

Santa Monica City Energy Usage by Sector

Sector	Number of Accounts	Annual kWh	Annual \$ Spent	Average \$/kWh	Average Annual kWh per Account	Average Monthly kWh per Account
Residential	45,883	199,426,245	\$25,562,842	\$.13	4,346	362
Commercial	5,230	505,125,916	\$49,346,609	\$.10	96,582	8,049
Industrial*	259	52,521,264	\$3,401,402	\$.06	202,785	16,899
Municipal	511	39,944,229	\$3,786,316	\$.09	78,169	6,514
Total	51,883	797,017,654	82,097,169	\$.10	15,362	1,280

*Includes only non temporary industrial accounts

While specific price proposals are not required for all potential participants, at a minimum, the City is seeking firm proposals for power from renewable resources for its City-owned facilities. The following table illustrates the City's exact loads, which are comprised of 485 meters having annual electricity usage of 21,395,642 kWh and an approximate peak demand of 5.3 MW.

City of Santa Monica (City-owned Loads) Energy Usage

	Number of Accounts	Annual kWh	Annual \$ spent	Average \$/kWh
Greater than 50 kW meters	26	8,978,793	941,321	\$.105
20 kW to 50 kW meters	12	6,791,003	611,246	\$.090
Less than 20 kW meters	447	5,625,846	690,453	\$.123
Total ³	485	21,395,642	2,243,020	\$.105

³ Based on detailed monthly usage information received from Southern California Edison.

The City will switch energy providers given that it can enter into a partnership with a company that will allow the City to achieve long term and sustainable economic, environmental and energy efficiency benefits that will contribute to the social well being of the City and its various constituents. The City will compare the benefits of the proposed offerings with benefits that are available through other regional and state direct access opportunities developed by various interest groups. One existing environmental offer is available through the State of California Department of General Services/Office of Energy Assessment (DGS/OEA).

If price proposals are submitted for the other potential participants, it is important that all responses are competitive with the existing options available to the constituents.

C. SOLICITATION PROCESS AND SCHEDULE

This solicitation process begins on November 9, 1998, with the mailing of this RFQ/RFP and continues until 4:00 p.m. Pacific Standard Time (PST) on December 15, 1998, the closing date and time for submission of proposals. Proposals received after 4:00 p.m. PST on the closing date will be deemed non-responsive to this RFQ/RFP and will receive no consideration in this solicitation process. Proposers are encouraged to submit a Notice of Intent to Respond, (NIR-see Attachment A), by November 20, 1998. All Proposers that submit an NIR will be placed on a mailing list and will receive relevant correspondence including any amendments to the RFQ/RFP.

A pre-proposal conference will be held for potential Proposers on December 1, 1998. A time for the conference will distributed as soon as it is established. The conference is scheduled to be held at the Ken Edwards Center at 1527 4th Street in Santa Monica. Any changes to the location will distributed to all Proposers. Questions to be addressed prior to the proposal response transmittal date may be submitted in writing (e-mail is acceptable) by December 1, 1998.

Proposers are not limited to one proposal. Each proposal must be submitted separately and will be evaluated separately. For each proposal, Proposers shall submit **one** original proposal and eight (8) copies in a sealed envelope sent by Registered Mail or Express Mail and received by no later than December 15, 1998, at 4:00 p.m. PST. Proposals received by fax are not acceptable and will not be considered.

The City will evaluate proposals and may compile a short list of the most qualified Proposers. Interviews may be conducted with the selected short list of Proposers. Proposers whose submittals are, in City's sole judgment, most likely to yield the greatest value to the program will be notified by January 8, 1999. Proposers must be prepared to begin negotiations on the terms and conditions of an Agreement for Power Purchase immediately following the vendor short list notification.

The City specifically reserves the right to discontinue or terminate negotiations with any Proposer, at its sole discretion, at any time without notice or reason. Proposers expressly agree as a condition of their response to this RFQ/RFP that they waive any right that they may have, whether in law or equity, to assert any claim against the City or any other entity associated with the administration of this RFQ/RFP, for any costs, damages or other relief with regard to this RFQ/RFP. The City reserves the right to modify the RFQ/RFP process and/or requirements at any time.

The City reserves the right to deem any proposal with incomplete responses as non-responsive and to give that proposal no further consideration. Alternatively, the City also reserves the right to request clarifications or additional information from any Proposer. Any requests for additional information are expected to be transmitted to Proposers in writing and postmarked no later than December 22 , 1998. All such requests so mailed will be deemed to be timely received. Failure of a Proposer vendor to provide the information requested seven calendar days from date of notification may result in the proposal being deemed non-responsive and the proposal may be given no further consideration. No modifications of proposals or resubmittals will be considered.

All proposals and supporting information shall become the exclusive property of the City. Information considered confidential by the Proposer must be clearly identified as such. The City will use all reasonable efforts to protect the confidentiality of information contained in proposals. The City may be required to release proposal information in order to meet regulatory or legal requirements. The City and/or the participating public agencies will not be held liable for damages resulting from the disclosure of confidential information pursuant to regulatory requirements or as part of a legal proceeding.

Although the City is committed to participating in this RFQ/RFP process, this solicitation does not commit the City to purchase capacity, energy or any other service from any Proposer. The City and its constituents reserve the right to purchase the power or services solicited in this proposal from any source regardless of the outcome of this solicitation.

The City reserves the right to select one or any combination of proposals submitted in response to this RFQ/RFP for further consideration and negotiations of specific agreements and waive any minor informality or irregularity in any proposal. The City also reserves the right to reject any and all proposals or portions thereof received in response to the RFQ/RFP, and may, for any reason, decide not to award an agreement(s) as a result of this RFQ/RFP.

The terms and conditions of final negotiated contracts will be subject to approval by the City.

Proposers are responsible for any and all costs associated with responding to this RFQ/RFP and related activities including, but not limited to, responding for requests for additional information, responding to modifications of the RFQ/RFP, attending meetings and/or interviews, negotiations, etc.

Summary of Schedule

Timeframe	Required Events
November 9, 1998	City Issues RFQ/RFP
November 20, 1998	Proposers Submit Notice of Intent to Respond
December 1, 1998	Proposers Submit Written Inquiries
December 1, 1998	Pre-Proposal Conference
December 7, 1998	City Issues Transcripts from Pre-Proposal Conference and Answers to Written Inquiries
December 15, 1998	Proposer Responses Due
December 16 January 15, 1999	Evaluation of Responses
December 22, 1998	Request for Additional Proposer Information
January 5, 1999	Additional Proposer Information Due
January 8, 1999	Notify Short List of Proposers
January 11-13, 1999	Interviews
TBD	Negotiations
January 26, 1999	City Council Approval.
First Quarter 1999	Agreement(s) for Service Executed
First Quarter 1999	Submit Application(s) for Direct Access
First Quarter 1999	Begin Service

D. DESCRIPTION OF LOADS

Customer specific data from Southern California Edison (in electronic – CD-ROM format or on diskette) will be provided to Proposers at the pre-proposal conference.

E. SCOPE OF SERVICES

The overall objective of this solicitation is for the City to realize benefits resulting from the restructuring of the electric industry while supporting its long term social, energy and economic goals. These efforts will result in an increased quality of life for the City and serve as an example for other cities and municipalities attempting to bring the same benefits to its constituents. The first priority for the City is to qualify vendors and procure electricity from renewable resources for its City-owned facilities in support of its Sustainable City Program. Secondly, the City is interested in leveraging the qualification process if it chooses to bring environmental options to its constituents. Upon conclusion of the RFQ/RFP process, the City

intends to select one or more of the Proposers to provide electrical services to the City. The City will negotiate a single contract (Agreement) with the selected Proposer(s).

Proposers are required to complete the qualification process and provide specific price proposals that addresses the City's own loads. Proposers may submit more than one bid; however, one bid must fully meet the load and energy service requirements of the City. Proposers are encouraged to describe qualifications that also meet the needs of the residential, commercial, industrial and public agency loads. Any price proposals for the additional potential load are strictly optional. In lieu of specific bids, it would be appropriate for vendors to describe the factors that would influence prices for the different sectors and describe in broad terms potential pricing strategies (by segment, minimum load requirements, number of customers, etc.).

The City anticipates purchasing renewable electric services by the end of the first quarter of 1999 or as soon as is feasible. Therefore, the City is requiring vendor proposals to contain full ESP services as is described in detail below. However, over the long term, the City is considering various scenarios in regards to its role in procuring renewable electric supplies for its loads and potentially its constituents. The City may organize itself as a "limited energy service provider" (Limited ESP) and assume some electrical service responsibilities in order to take advantage of potential wholesale offerings. Alternative proposals that do not contain full ESP requirements may supplement the proposer's response. If such offers are proposed, the vendor must clearly identify which functions would be the responsibility of the City and which functions would be provided by the vendor. A transition plan from providing full ESP requirements to the City taking on more electrical service responsibilities will need to be addressed.

FULL REQUIREMENT ESP SERVICES - Proposals shall include the following:

1. Power Supplies and Delivery

This may include a power brokering arrangement, wholesale arrangement or power generation. The Proposer should describe its renewable generation offer in detail to meet the needs of the City-owned facilities. Proposers are required to complete Attachment D, which addresses relevant environmental factors important to the City.

Note that any Proposer selected or its contractor shall absorb all financial risk or penalty associated with non-performance, including any penalties levied by the ISO.

2. Scheduling Coordination

Capability to provide the ISO with balanced hourly schedules for the City. Please note whether your company will serve as the scheduling coordinator for the City or if your organization will contract with a certified schedule coordinator. Describe certification to act as a scheduling coordinator (SC) or provide current contracts/agreements with scheduling coordinators.

3. Ancillary Services

Proposers shall describe any agreements or contracts for ancillary services including spinning reserve, replacement reserve generation, replacement reserve dispatchable load, regulation, non-spinning reserve generation and non-spinning reserve dispatchable load.

4. Billing

If offering billing services, Proposers must describe their strategy for billing management, account settlement, and payment collection. Proposers shall demonstrate experience as a billing agent and describe the proposed billing method: Utility Distribution System (UDC) consolidated billing or Energy Service Provider (ESP) consolidated billing. Separate UDC/ESP billing is not desired and a standard billing format is preferred. In addition, there is a strong interest to have access to historical billing data in electronic format and to have consolidated billing for multiple accounts/meters. Include the availability of electronic customer billing data in your response and the capability to conduct consolidated billing.

5. Direct Access Service Requests (DASRs) Submittal

Proposers shall provide a description of process, in particular responsibility of the City, and estimated time involved for submitting DASRs to Southern California Edison.

6. Energy Management (Conservation/Demand-side Management)

The City is interested in exploring ways to take an active role in the management of its overall energy use. Proposals are encouraged to include any cost effective solutions and strategies that would enable the City to use energy as efficiently as possible while reducing the City's reliance on non-renewable energy resources. These strategies can include but are not limited to energy audits to identify areas that may require energy management solutions, equipment retrofits to increase the life and efficiency of facilities and the use of load shaping to control total energy costs. The City is also interested in the role that new and emerging energy technologies can play as it attempts to reduce its use of non-renewable energy sources. These distributed generation technologies often consist of photovoltaics, solar thermal electric, fuel cells and small wind turbines.

7. Load Profiling

Proposers shall describe their methodology for allowing small accounts (< 50 kW) designated by the California Public Utilities Commission (CPUC) to participate in direct access through the use of load profiling. The City is interested in procuring renewable power supplies for all of its loads. For all City loads to participate in direct access, load profiling will have to be conducted on over 58% of its load.

8. Metering

Describe the Proposer's plan for meeting required hourly interval metering (installation, testing, and maintenance) and data communication for individual service accounts not eligible for load profiling⁴. The metering proposal should endeavor to minimize or eliminate capital costs for the City. Proposers should define and describe their authority to act as a meter service provider (MSP) or any relationship with an organization that is certified to provide such services.

9. Meter Reading/Data Management

Define the Proposer's strategy for required meter reading of individual service accounts for metered accounts and load profiles accounts. Proposers should define and describe their authority to act as a meter data management agent (MDMA) or any relationship with an organization who is certified to provide such services.

10. Other Value-Added Services

Proposers shall describe in detail any other services that would add value to the City such as financing services, willingness to invest in distribution infrastructure, substations, distributed generation and co-development of existing public agency-owned facilities. Proposers may also include strategies to solicit and distribute funds collected through the Public Goods Charge to be used in the City. Proposers shall also include any value-added services or products it offers that would use or take advantage of other renewable funding sources.

F. RESPONSE FORMAT

Qualifications and proposals shall have an 8 1/2 by 11 inch paper size with a cover page clearly displaying 1) the company name of Proposer and 2) contact person's name, address, phone, fax number, and e-mail address. Only that information which is essential to an understanding and evaluation of the proposal shall be submitted. The proposal shall be concise, well organized and demonstrate the Proposer's qualifications and experience applicable to providing energy services. Type size and margins for text pages shall be in keeping with accepted standard formats for desktop publishing. All pages are to be consecutively numbered. No limitation on the content of the proposal is intended and the inclusion of any pertinent data or information is permitted. Mark all confidential material as CONFIDENTIAL in the upper right hand corner of the page. The maximum number of pages allowed in the proposal exclusive of attachments and forms is twenty (20) pages.

It is **strongly encouraged** that Proposers comply with following submittal form guidelines:

⁴ Southern California Edison defines the customers eligible for load profiling as residential or small commercial customers in its Rule 1 – Definitions as Small Customer/Applicant: Applicants for service and customers served under Domestic Rate Schedules and Schedules GS-1, TOU-GS-1, TOU-EV-3, PA-1, AL-1, LS-1, LS-2, LS-3, OL-1, and TC-1.

- Use recycled and/or tree free paper.
- Print double sided.
- Use report covers or binders that are recyclable, made from recycled materials and/or easily removable to allow for recycling of the report pages. Reports with glued bindings that meet all other requirements are acceptable.
- The use of plastic covers or dividers should be avoided.
- Unnecessary attachments or documents not specifically asked for should not be submitted. Avoid superfluous use of paper (e.g.; separate title sheets or chapter dividers).

These guidelines were developed as part of Santa Monica's Sustainable City Program to promote waste reduction and resource conservation within the community. Thank you for your cooperation in this important effort.

The proposal and all attachments shall be complete and free of ambiguities, alterations, and erasures. In instances where a response is not required, or where material is not applicable to the proposal, a response such as "no response required" or "not applicable" is acceptable. The proposal shall be executed by a duly authorized officer or agent of the Proposer. In the event of conflict between words and numerals, the words shall prevail.

The content of the proposal shall be organized as follows:

Executive Summary

Include an overview of the entire response to the RFQ/RFP describing the most important elements (two-page maximum).

1. Identification of the Proposer (Attachment B)

Complete fully and attach Proposer Information Form here. Proposers shall indicate whether the company has submitted an energy service provider Agreement to Southern California Edison and provide the CPUC registration number. If the provider of ESP services in the proposal is not currently registered as an ESP with the CPUC, please provide a copy of the application and anticipated time frame for submittal.

2. Understanding of the Requested Services

Provide a statement demonstrating an understanding of the energy services requested in the RFQ/RFP.

3. Services Offered by the Proposer (Attachment C)

Proposers shall identify each of the services listed in Section E that the company (or Vendor Team) proposes to offer to the City. If Proposer (or Vendor Team) submits a supplemental offer

that does not include the full requirements, please note that as the case and list which services would be the responsibility of the City. The Proposal shall also demonstrate the company's (or Vendor Team's) qualifications for providing each service.

Proposers shall also describe in detail the factors affecting the assurance of the supply arrangements. The discussion shall include detailed information regarding contractual arrangements for power supply, the transmission arrangements, the certainty of fuel supply and price (if costs are not fixed), the potential environmental considerations, if any, the reserves arrangements, the emergency power arrangements and the vendors Proposer's ability to deal with contingencies on a real-time basis.

4. Generation Sources (Attachment D)

Proposers shall fully disclose all matters relating to the generation sources that will be used to satisfy the needs of the City and potentially its constituents as described herein. Among other items, the description shall include the type and percentage of power from renewable resources. The description shall also include the Proposers status as a CEC certified in-state renewable provider and its plan for the provision of any applicable credits to end use customers. The Proposer shall also describe how the premiums paid by the City are supporting renewable generation sources inside or outside the State of California.

5. Schedule for Services

The City anticipates taking advantage of direct access by purchasing renewable power supplies by the end of the first quarter of 1999 or as soon as feasible. Proposers shall provide a detailed schedule with all the steps required to implement direct access (including meter installation as appropriate) by the desired date or by an alternate proposed date. Also provide a schedule to implement energy services (if any proposed) other than procurement of commodity supplies for direct access.

6. Declarations - Proposals shall contain the following:

- a. A statement that this RFP shall be incorporated ~~entirely~~ ^{in whole} as a part of the Proposer's bid.
- b. A statement that this RFP and the Proposal will jointly become part of the Agreement for electrical services for this project when said Agreement is fully executed by the Proposer and the City.
- c. A single and separate section with the heading ~~EXCEPTIONS TO CITY'S REQUEST~~ ^{EXCEPTIONS TO CITY'S REQUEST} FOR PROPOSAL" containing a complete and detailed description of all of the exceptions to the provisions and conditions of this request for Proposal upon which the Proposal is contingent and which may take precedence over this RFP. If the Proposal

contains no exceptions to this RFP, the Proposer shall include this section and indicate “No Exceptions.”

- d. If applicable, a statement that the Proposer shall collect and remit all approved local franchise fees, utility user taxes, and business license taxes that are currently collected by the Investor Owned Utilities. This statement shall be in direct correlation with Public Utilities Code, Sections 6350 and 6354, and for fees as set forth in the Public Utilities Code Sections 401 and 410 as stated in the League of California Cities letter dated December 4, 1997.

7. Pricing (Attachment E)

Proposers shall describe all costs for each proposed service on the Proposers Costing Form. Under direct access, it is assumed that transmission, distribution, public goods, and CTC charges, as well as local franchise fees and utility user taxes will be paid to Southern California Edison. Proposers may submit fixed and/or variable price proposals. Prices tied to an index or market may be proposed. Any “shared-savings” or other innovative proposals shall identify the method used to calculate the benefits to all the participating agencies of the City as well as to the Proposer. The proposals shall specify the rates charged for time-of-use or seasonal pricing if applicable.

The proposal shall clearly state the term of the proposed prices for City owned loads.

Proposals shall be prepared in the provided format to facilitate direct comparisons with existing Southern California Edison rate schedules. If Proposers Costing Form (Attachment E) is not completed, the proposal will be considered non-responsive. For escalated pricing, Proposers shall provide a projection of the expected escalation factors along with support for the factor or use of a particular index. Any limitations on City’s ability to vary the amount of the proposed supply must be explicitly defined.

Proposers shall separate the cost of each service function. If offering additional services, provide a detailed price and fee structure for each proposed service. It is the City’s desire to have Billing, Metering, Meter Reading/Data Management, Load Profiling, DASR Submittal, Energy Management, and Other Value-added Services as described under Section E – Scope of Services priced separately.

Proposers shall also specify how the risk for the City will be minimized. All proposal prices submitted in response to this RFQ/RFP shall be valid for a reasonable period of time and shall be applicable for a 90-day period of time to allow for City review and commitment. State a minimum and maximum load threshold for which pricing is valid. For evaluation purposes, provide individual costs for each service offered as well as a total price. The City recognizes that pricing is subject to change given daily market conditions. Prices will be evaluated subject to current market factors and other available competitive bids.

8. Qualifications (References)

In this section, Proposers shall outline their qualifications for providing electrical services to the City. Proposers (or Vendor Teams) must document their operating authority, financial strength, and experience. Provide three current references (preferably California retail or wholesale customers) for which you have provided services similar to those requested by the City. Include company name, contact person, type and length of service provided, phone number and authority to contact individual. If using subcontractors, submit one additional reference for each subcontractor. In addition, demonstrate and describe your firm's (or vendor

a) Operating Authority to do business in the State of California

- i. Business authority to operate in California and provide the services offered.
- ii. Possession of appropriate FERC authorizations.
- iii. Authority as a Scheduling Coordinator or possession of a contractual relationship with such an organization.
- iv. Unless Proposer is a Utility Distribution Company (UDC), the authority to act as an MSP or MDMA or contractual relationship with such an organization.
- v. Unless Proposer is a Utility Distribution Company (UDC), registrations with the CPUC as an ESP or possession of a contractual relationship with such.
- vi. Compliance with any applicable environmental requirements.

b) Financial Strength

The stability and financial strength to meet obligations to the City and any other potential participants in the program. This portion of the proposal will be held confidential and will be returned or destroyed immediately following the conclusion of the RFQ/RFP process. Responses that shall be considered acceptable include:

- i. Audited financial statements for the last three years, pre-tax earnings, net working capital and cash flow data.
- ii. Profit and Loss Statement.
- iii. Balance Sheet.
- iv. Credit rating by nationally recognized firm (e.g. Dun & Bradstreet, Moody's, Standard and Poor's), or equivalent, if available.
- v. A detailed plan which clearly indicates the means to support the respondent's proposed contractual obligations.
- vi. A summary of financial arrangements addressing indicators such as interest rate, level of equity investment, debt term, debt structure, capitalized interest, etc.
- vii. A description of any adverse material changes in financial position since the end of the most recent fiscal year.

- viii. A letter from a bonding agency stating that performance and payment bonds for the proposed services will be provided.
- ix. Discussion of the proposed financial arrangements between the vendor teams as they relate to liability to City and the participants for work to be performed under this project.

c) Experience

Proposers shall provide descriptions of the following:

- i. Past and present performance in the energy industry, including any information describing current direct access customers receiving competitive services from your firm. Include in this description the number of customers receiving power from renewable resources and the percentage and type of renewable resources those customers are receiving.
- ii. Presence of well developed power supply/planning/operating guidelines.
- iii. Established relationships with reliable power suppliers including those from renewable resources.
- iv. Corporate ownership and clear long term business plan (5 year if possible).
- v. Ability to provide performance bonds, corporate warranties or other guarantees to insure that the City and participants will not be subject to penalty payments to the State Power Exchange or ISO, or other costs associated with the vendor's
- vi. All pending civil or breach of contract legal actions with potential liability above \$50,000 and all criminal legal actions above \$50,000 or involving any period of imprisonment now pending or which have occurred in the past 10 years against the company or any official, officer or employee of the company submitting a proposal.

d) Management Team

Describe the proposed organization, including a diagram with subcontractors and key company personnel. Identify responsibilities of key personnel, including:

- i. Name of Contract Administrator
- ii. Office Location
- iii. How services will be administered
- iv. Roles and responsibilities of contractor and all subcontractors
- v. Staffing levels for the project

Provide resumes of all key personnel who will be assigned to complete the work.

G. BONDS AND INSURANCE

The Proposer shall describe its ability to provide performance bonds, corporate warranties or other guarantees to insure that the City and any of its potential participating constituents will not be subject to penalty payments to the State Power Exchange or ISO, or any other costs (such as the cost of conducting another RFQ/RFP process) associated with the Proposer's failure to perform. This shall include a statement that the Proposer is ready and able upon request to provide to the City a letter from a bonding agency stating that performance and payment bonds for the proposed services will be provided.

H. EVALUATION CRITERIA

The City will evaluate responses to this solicitation to determine which proposals appear most likely to provide the overall greatest value. All proposal attributes including price will be used to screen the proposed responses and develop the short list of qualified vendors. Some of the specific criteria to be considered in the evaluation of the proposals are:

1. Generation Source – The City will consider such factors as the environmental sensitivity of the generation source and the actual percentage of the entire power supply that is derived from renewable resources. The City will also take into consideration the geographic source of the generation (in state vs. out of state) and any contribution to new renewable resources. There will also be an evaluation of what role the City will be able to play concerning the distribution of any financial premium it is paying for power from renewable sources.
2. Competitive Pricing – Although the City realizes the marketplace has priced generation from renewable resources at a premium, the ability of a Proposer to offer green power at a competitive price is certainly of the utmost importance to the City. The City will also consider the ability of the Proposer to offer credits to the City from the California Energy Commission's (CEC) Renewable Resource Trust Fund. Southern California Edison's current tariff rates and charges will be the basis for determining the attractiveness of an offering.
3. Competitive Offer – The ability to respond to the minimum requirements of the requested services as well as provide competitive offers to the otherwise available programs in the current market.
4. Requirements Met - The demonstration by the Proposer of the ability to meet the requirements of the RFQ/RFP. This criterion will involve an assessment of the Proposer's experience in providing the types of services solicited in this RFQ/RFP, the Proposer's

organizational stability, and supply attributes such as 1) the resources supplying the power, 2) reserve support and arrangements and, 3) any other supply reliability related service arrangements, and 4) the financial guarantees provided with the proposed services.

5. Favorable Terms - Favorable terms and conditions in the power purchase agreement. Power supply arrangements and pricing terms which provide the City flexibility, value, and minimal risk will also be afforded consideration in the selection process.

These criteria are not necessarily listed in order of priority nor indicate the weight that the different criteria will receive in the evaluation of the responses.

NOTICE OF INTENT TO RESPOND (Attachment A)

Please place my name on the distribution list for further notices or correspondence
regarding this RFQ/RFP

Name: _____

Company: _____

Address: _____

Telephone: _____

Fax: _____

I plan to attend the Pre-Proposal Conference on December 1, 1998

Yes _____, # of Attendees _____

Proposer Information Form (Attachment B)

Statements shall be complete and accurate and in the form requested. Omission, inaccuracy or misstatement may be cause for the rejection of a proposal.

Legal Name of Firm

Date Established Under Current Name

Street Address

Firm's Telephone Number

City/State/Zip

Firm's Fax Number

Type of Organization
(Corporation, Sole Proprietorship, Partnership, etc.)

Firm's World Wide Web Address

Parent Company (if any)

☐ Yes _____ (date) ☐ No
Registered to do business in California

Affiliated Energy-related Companies

Business License (Documented)

Taxpayer ID Number (Federal)

Name of Principal Contact

Title of Principal Contact

Direct Phone Number of Contact

Principal Contact E-mail Address

Address for Correspondence

City/State/Zip for Correspondence

☐ Yes ☐ No
Registered as a disadvantaged/minority/woman
-owned business Enterprise in California

Energy Service Provider Registration #

FERC Registration #

SEC Registration #

Date Executed Scheduling Coordinator Agreement
With ISO

List any subcontractors proposed, their phone numbers, and areas of responsibility:

Proposer Information Form (cont.)

Has the organization been the subject of litigation for the failure to meet contracted obligations to deliver or supply electricity within the last 3 years? ☐ Yes ☐ No
(If yes, give details in attached statement)

Has the organization filed for bankruptcy, or is it currently in default of business loans, or is it responsible for undisputed payments to suppliers or transporters which are over 60 days past due? (If yes, give details in attached statement) ☐ Yes ☐ No

Have any agreements held by the organization for providing electricity services ever been canceled? (If yes, give details in attached statement) ☐ Yes ☐ No

Is the organization currently engaged in merger or acquisition negotiations, or does it anticipate entering into merger or acquisition negotiations within the time period of this RFQ/RFP? (If yes, give details in attached statement) ☐ Yes ☐ No

Do you have a California or West Coast office? ☐ Yes ☐ No
(Attach address and phone if different from previous page)

What year did your company begin selling electricity to the
Wholesale market? _____ (date)
Retail market? _____ (date)

What is your volume of electric generation owned or dedicated under firm long-term supply contracts? Specify fuel type for each source of supplies (Coal, natural gas, diesel, solar, etc.).

California	_____
Western States	_____
International	_____
Total	_____

Provide your total electric sales in dollars and in energy units for 1995 and 1996.

1995	_____	_____
	Total	California
1996	_____	_____
	Total	California

The undersigned hereby declares under penalty of perjury that all statements, answers and representations made in this questionnaire are true and accurate, including all supplementary statements hereto attached. In the case of a corporate proposer, the signature of one duly authorized representative is sufficient.

Signature/Date

Signature/Date

Proposer's Typed Name and Title

Proposer's Typed Name and Title

Services Offered by Proposer (Attachment C)

Table shall be complete and accurate and in the form requested. Omission, inaccuracy or misstatement may be cause for the rejection of a proposal. Please check the appropriate box identifying provider of each individual service.

REQUESTED SERVICES	Offered by		
	<i>Prime Proposer</i>	<i>Subcontractor (name provider)</i>	<i>Other Alternatives⁵</i>
SERVICES			
Power Supplies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scheduling Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ancillary Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meter Reading/Data Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Load Profiling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Billing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DASR submittal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy Management (Conservation/Demand-side Management)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Value-Added Services (Describe in detail)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁵ Describe options for procuring this service if proposal team does not offer it. (May include Power Exchange, UDC, or other options).

Generation Information Form (Attachment D)

Statements shall be complete and accurate and in the form requested. Omission, inaccuracy or misstatement may be cause for the rejection of a proposal.

Describe the type (hydro, solar, wind, geothermal, etc.) of renewable generation that will be used to meet the needs of the City as defined in this RFP/RFQ:

- Describe the actual percentage of renewable generation that will be used to meet the needs of the City as defined in this RFP/RFQ:

- Provide a statement as to whether or not the renewable generation that will be used to meet the needs of the City as defined in this RFP/RFQ are from sources located within the State of California:

- If the renewable sources are located within the State of California, state whether or not the Proposer is registered with the CEC as an in-state renewable supplier:

- If credits from the CEC are available to the City and/or its constituents, describe how the Proposer plans to distribute the credit rebates to the appropriate parties. State if the Proposer has applied for and/or received such credits within the past six months.

- Describe the Proposers' willingness to allow the City to determine how the premium it would be paying for green power is allocated (i.e. specific technologies, specific generation plants):

Describe whether the premium the City would be paying would be distributed towards developing new renewable generation resources or supporting existing renewable generation resources. Also describe if these generation sources are inside or outside the State of California:

State if the power that will be used to meet the needs of the City as defined in this RFP/RFQ is Green-e certified:

Proposer Costing Form (Attachment E)

Statements shall be complete and accurate and in the form requested. Omission, inaccuracy or misstatement may be cause for the rejection of a proposal.

1. Enter supply bid for the entire load of combined constituents that have signed letters of interest (required). Additional supply bids may be submitted for the potential additional load.
2. Enter separately renewable resource supply bids for the entire load or for increments in blocks of loads (optional). An additional supply bid may be submitted for the potential additional load.
3. All supply bids must include power supplies, schedule coordination, and ancillary services to deliver actual power supplies through Direct Access. These required services must be priced separately and prices should not be bundled with the other offered services.
4. Proposers have flexibility to structure bids (e.g., fixed, indexed, TOU-independent, etc.). Any “shared-savings” benefits should be in addition to the quoted prices.
5. Enter minimum threshold load required to hold offered prices (if any).
6. Enter maximum capacity available (if any).
7. Enter the proposed contract term (e.g., 1 yr renewable, 4 yr, or specify number of years for longer term).
8. Where demand charges do not apply, “NA” is an acceptable response.
9. Supply bid alternatives may be submitted. Copy the form to submit alternative bids.
10. Provide a detailed price and fee structure for each additional proposed service: Billing, Metering, Meter Reading/Data Management, Load Profiling, DASR Submittal/Verification Agent (if required), Energy Management, and Other Value-added Services as described under Section 4.

Supply Bid (inclusive of power supplies, schedule coordination, and ancillary services)	Summer			Winter			Minimum Threshold load (kWh & kW)	Maximum capacity Available (kW)	Proposed Contract Term
	Demand Charge (\$/kW- mo)	Energy Charge (\$/kWh)		Demand Charge (\$/kW- mo)	Energy Charge (\$/kWh)				
		On- Peak	Semi- Peak		Off- Peak	On- Peak			
Non-renewable Resource									
Renewable Resource									
Non-renewable Resource									
Renewable Resource									
Billing									
Metering									
Meter Reading/Data Mgmt.									
Load Profiling									
DASR Submittal									
Energy Mgmt.									
Other Value- added Services									

Definitions (Attachment F)

AB 1890: Assembly Bill 1890 which was signed into law on September 23, 1996 as Chapter 854 of the Statutes of 1996. AB 1890 provides the legislative guidance for restructuring of the electric industry in California.

Ancillary services: A series of services self provided by the Scheduling Coordinators or procured by the ISO that support the transmission of energy from the generation sources to the loads while maintaining reliable operations of the ISO controlled grid. The services consist of:

- Regulation - A mechanism to keep generation within certain levels,
- Spinning reserve - See below,
- Non spinning reserve - See below,
- Replacement reserve - The ability to replace used spinning reserve,
- Voltage support – A service required by generating units to maintain required grid voltage criteria.
- Black start - The ability to supply power from a generator that does not require using electricity from the system to start.

Aggregator: Any marketer, broker, public agency, City, county, or special district, that combines the loads of multiple end-use customers in facilitating the sale and purchase of electric energy, transmission, and other services on behalf of these customers.

California Public Utilities Commission (CPUC): An administrative agency established to regulate privately owned utilities and to secure adequate service to the public at rates which are just and reasonable both to customers and shareholders of the utilities.

Committed agencies: One of 29 agencies that have committed their load to the process.

Competition Transition Charge (CTC): A nonbypassable charge on each customer of the distribution utility, including those who are served under contracts with nonutility suppliers, for recovery of the utility's transition costs.

Demand: The rate at which energy is delivered to loads and scheduling points by generation, transmission or distribution facilities. It is the product of voltage and the in phase component of alternating current measured in units of watts or standard multipliers thereof, e.g., 1,000W=1kW etc.

Dispatchable load: Load which is the subject of an adjustment bid.

Direct Access (DA): A service election which allows customers to purchase competitive energy services from non-utility entities registered with the State of California known as ESPs.

Direct Access Service Request (DASR): A service request form submitted to the UDC by the customer's authorized ESP requesting participation in Direct Access.

Energy Service Provider (ESP): An entity which provides electric service to a retail or end-use customer, but which does not fall within the definition of an electrical corporation under Public Utilities Code Section 218.

Independent Third-Party Verification Agent (IVA): A company that obtains the customer's oral confirmation regarding any desired changes to obtain energy services from a different electric utility.

In State Renewable Supplier: A supplier of in state renewable generation that is registered with the California Energy Commission as such.

Kilowatt (kW): Often referred to as electric demand, kW is the amount of energy drawn by a customer at a specific time.

Kilowatt-hour (kWh): Electric energy expressed in kilowatt-hours is measured by multiplying the amount of electric power delivered (measured in watts) by the amount of time over which the energy was consumed (measured in hours). Kilowatts equal one thousand watt-hours. Megawatts equal a million watt-hours or one thousand kilowatt-hours.

Load Factor: Load factor indicates to what degree a customer's actual energy consumption (kWh) during a given time period to the consumption that would have occurred had consumption been fully sustained at the customer's maximum demand (kW) level. Load factors are expressed in percentages, and higher load factors represent a more even distribution of load.

Independent System Operator (ISO): The ISO is responsible for the operation and control of the statewide transmission grid.

In State Renewable Generation: Those renewable generation sources described herein that are generated within the State of California.

Load Profiling: The process of graphing a customer's demand for energy over a period of time, typically a day, season or year.

Marketer: Any entity that buys electric energy, transmission, and other services from traditional utilities and other suppliers, and then resells those services at wholesale or to and end-use customer.

Non-spinning reserve: Reserve capacity of those generating units that are off line that can come online within one day.

Power Exchange (PX): The California power Exchange Corporation, a state chartered, non profit organization charged with providing the day ahead and hour ahead forward market for energy and ancillary services, if it chooses to self provide in accordance with the PX Tariff. The PX is a scheduling coordinator and is independent of the ISO and other market participants.

Potential Agencies: One of the 170 public agencies that may choose to participate in the future.

Public Goods Charge (PGC): A nonbypassable surcharge imposed on all retail sales to fund public goods research, development and demonstration, and energy efficiency activities, and possibly to support low income assistance programs.

Qualifying Facility (QF): A small-power producer or cogenerator that can sell its electricity to public utilities.

Rate Reduction Bonds (RRB): Bonds, notes, certificates of participation or beneficial interest, or other evidences of indebtedness or ownership, issued pursuant to an executed indenture or other agreement of a financing entity, the proceeds of which are used to provide, recover, finance, or refinance transition costs and to acquire transition property and that are secured by or payable from transition property.

Renewable Generation: Generation from biomass, solar thermal, photovoltaic, wind, geothermal, small hydropower (30 megawatts or less), waste tire, digester gas, landfill gas and municipal solid waste generation technologies.

Scheduling Coordinators (SCs): Entities certified by the Federal Regulatory Commission that act as a go-between with the ISO on behalf of generators, supply aggregators (wholesale marketers), retailers, and customers to schedule the distribution of electricity.

Spinning reserve: The percentage of an online generating unit's electric generating capacity which is immediately available to meet changes in demand and is available for a minimum of two hours. This is one component of ancillary services as defined by the ISO.

Utility Distribution Companies (UDCs): The entities which will continue to provide regulated services for the distribution of electricity to customers and serve customers who do not choose direct access.

Vendor teams: Two or more potential service providers who plan to combine to provide electricity and related services in response to a Request for Proposal.

Virtual Direct Access: Also known as the hourly PX rate option. This rate option allows customers to purchase electricity on a rate schedule that reflects their usage in real time or time of use increments based on the PX price.

For comparison purposes, all time periods are defined by the following table:

	Summer (1st Sunday in June to 1st Sunday in October)		Winter (1st Sunday in October to 1st Sunday in June)	
On-Peak	12 pm – 6 pm	Weekdays		
Mid-Peak	6 pm – 11 pm 8 am – 12 pm	Weekdays	8 am – 9 pm	Weekdays
Off-Peak	11 pm – 8 am All day	Weekdays Weekends & Holidays	9 pm – 8 am All day	Weekdays Weekends & Holiday

APPENDIX G – PUBLIC AGENCY RESOURCES

This appendix contains a partial list of public agencies that have released RFP/RFQ's for energy service providers.

Organization	Contact	Telephone Number
City of Oakland	Scott Wentworth	(510) 615-5421
City of Santa Monica	Susan Munves	(310) 458-8229
City of San Diego	David Stucky	(619) 685-1328
City of Long Beach	Joan Collier	(562) 570-2051
City of San Jose	Rita Norton	(408) 277-3861
City of Concord	Peter Dragovich	(925) 671-3085
Somona County	Ardeth Andrew	(707) 565-2906
University of California/ California State University	Gary Matteson (UC)	(510) 987-9268
Cove Communities	Catherine Mitton	(760) 324-4511
San Diego Regional Energy Office	Kurt Kammerer	(619) 595-5630
San Diego Association of Governments	Steve Sachs	(619) 595-5346

For information on how the Energy Commission's Energy Efficiency Programs can help you reduce energy cost in your facilities, contact us at:

California Energy Commission
Nonresidential Buildings Office
1516 Ninth Street, MS 26
Sacramento, CA 95814

Telephone: (916) 654-4008
FAX: (916) 654-4304

Visit our Web Site:
<http://www.energy.ca.gov/efficiency>